Ontario. Dept. of Lands and Forests
Annual Report 1971-72

LANDS AND FORESTS
ONTARIO
1972

ANNUAL REPORT
OF THE MINISTER

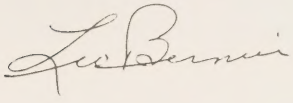
ANNUAL REPORT

OF THE
MINISTER OF
LANDS AND FORESTS
OF THE PROVINCE
OF ONTARIO
FOR THE FISCAL YEAR
ENDING MARCH 31, 1972.

PRICE: $1.00

TO HIS HONOUR,
The Lieutenant-Governor
of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR
The undersigned begs respectfully to present to your Honour, the Annual Report of the Department of Lands and Forests for the fiscal year beginning April 1st, 1971, and ending March 31, 1972.



LEO BERNIER
Minister

DEPARTMENT OF
LANDS AND FORESTS

Ontario

FOREWORD

The Annual Report of the Minister of Lands and Forests is a review of the Department's activities during the latest fiscal year completed. Additional detail is reported in "Statistics, 1973" which is released concurrently.

This is the first Annual Report since the administrative reorganization which became effective on April 1, 1971. Head office branches are now grouped within four divisions, each under an executive director, with the exception of Research Branch which is under a director who reports directly to the Deputy Minister. The new divisions are named below. The field organization is still based on twenty-one forest districts, grouped within three regions.

As this report takes the form of a collection of reports by the Department's numerous subdivisions, it should be noted that these represent the considerable variety of the Department's responsibilities and the many duties discharged with the same over-all aim.

This common aim and dependent objectives were examined closely following the adoption of the Planning, Programming and Budgeting System of management by the Ontario Government in 1969. Considerable work had been done in this area previously, so that what was required was actually a refinement to the following terms.

GOAL AND OBJECTIVES

> *To provide from Crown lands and waters, and to encourage on private lands and waters, a continuing combination of resource development, outdoor recreation, and quality environment most consistent with the social and economic well-being of the people of Ontario.*

The three principal objectives follow logically from the goal statement and are reflected in the new organization as stated below. Essentially, the land management objective is concerned with the land base and its care and up-keep. The other two objectives relate to the consumptive and non-consumptive uses of the renewable resources which exist on the land base.

LAND MANAGEMENT OBJECTIVE

> *To provide co-ordinated land and water resource management within the framework of a government-wide quality environment goal through planned land-use allocation and control, environmental protection, and inter-agency co-operation so that optimum social and economic benefits accrue to the people of Ontario both now and in the future.*

This is the common objective of programs which are the responsibility of the new Land Management Division.

OUTDOOR RECREATION OBJECTIVE

> *To provide (a) opportunities for a wide variety of outdoor recreational experiences accessible to, and for the continuing benefit of, all the people of Ontario, and (b) an optimum continuing contribution to the economy of Ontario and its regions from the tourist industry.*

This is the common objective of programs which are the responsibility of the new Outdoor Recreation Division.

RESOURCES DEVELOPMENT OBJECTIVE

> *To provide an optimum continuing contribution to the economy of Ontario and its regions from the industries utilizing renewable, natural resources.*

This is the common objective of programs which are the responsibility of the new Resource Products Division.

The new Finance and Administration Division and Research Branch share in the Department's goal and objectives through the services they provide for the first three divisions.

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OUTDOOR RECREATION DIVISION

PARKS AND RECREATION AREAS BRANCH

The Branch was reorganized in July, 1971, into two sections with duties and responsibilities as follows.

Park Planning. Long-range and detailed planning for parks, related public recreation areas, and nature reserves.

Park Management and Development. Park operation standards; park interpretive programs; operating revenues and expenditures; statistical data; public access points to lakes and rivers; and canoe routes, hiking trails and snowmobile trails.

PARK PLANNING

Work continued in the search for future parkland for Ontario residents, and further developments were made toward simulating tourism and recreational behavior with computer programs to predict current and future trends.

CORDS

Phase I of the Canada Outdoor Recreation Demand Study (C.O.R.D.S.) was completed. Ten Provinces and the Federal Government co-operated to create data files from park user surveys, national household surveys, and an outdoor recreation facilities inventory. Phase II, the development of systems for interpreting the data collected, was undertaken in 1971 to assess the relative demand and need for recreational facilities.

TORPS

During 1971-2, the inter-departmental Tourism and Outdoor Recreation Planning Study (T.O.R.P.S.) achieved major progress toward its goal of predicting the interaction between outdoor recreation demand and supply and the evaluation of alternative strategies. Work completed during the year included: the building and programming of a research model simulating tourism and recreation behavior; the development of an operations manual; development of a sensitivity analysis program to compare the effects of changing parameters against the base model run; and development of a skiing attractivity analysis.

CORTS

Work continued on the Canada-Ontario-Rideau-Trent-Severn Study (C.O.R.T.S.) to optimize recreational use of the 425-mile waterway. Progress in 1971 included the publication "Yesterday, Today and Tomorrow", which was released to the public to determine reaction and solicit comments. Some 26 public hearings have been held. Special studies were also commenced on Lake Simcoe and the Bay of Quinte.

NEW PROJECTS

Fathom Five. Canada's first underwater park, located off the tip of Bruce Peninsula, advanced another step with the completion of background planning and the start of the master planning stage.

Bronte Creek. Ontario's first urban-oriented Provincial Park, a 1,500-acre site half way between Toronto and Hamilton, is planned to provide year-round, day-use recreational opportunities for the large urban population of the region.

Peche Island. Another urban-oriented park, located in the St. Clair River just outside Windsor, was purchased in 1971.

National Park. During the year a memorandum of intent was signed by the Government of Ontario to transfer ownership of the Pukaskwa tract, on the north shore of Lake Superior, to the Government of Canada for development into a national park. Subsequently, a joint Federal-Provincial Co-ordinating Committee was established to work out the details that will result in a master plan for the park.

Park Reserves. As of March 31, 1972, there were 101 park reserves, totalling 1,258,221 acres, or 1,966 square miles.

SKIING

To serve the growing demand for skiing facilities, it is the intention to study areas for future ski development. Two key areas acquired are in the Beaver Valley, just south of Collingwood, and the Kendall Hills area, north of Oshawa.

NATURE RESERVES

Nature reserves are Class V parks or they may be zones within other classes of parks, encompassing both unique and representative segments of flora, fauna, geology and physiography. During the summer of 1971, teams of ecologists and geomorphologists carried out inventory surveys of Provincial Parks, park reserves and some specific locations on the Niagara Escarpment, particularly the Bruce Peninsular section. These ecological inventories serve as a basis of master planning, site planning and interpretive planning.

PARK MANAGEMENT AND DEVELOPMENT

Park use increased substantially in 1971. The number of visitors increased from 12,172,254 to 13,658,619, a gain of 12.2 per cent. This number included 1,618,948 campers, a 7.7 per cent increase on the year. Camper-days were up to 3,788,525, a 7.3 per cent increase.

The occupancy rate of camping areas during July and August continued to rise, going from 60 per cent in 1970 to 62 per cent in 1971. Many parks in the south and in some parts of the north were unable to meet the demand for campsites on a number of weekends. The greatest demand for campsites was in southern Ontario where 75 per cent of the campsites are located.

NEW DEVELOPMENTS

Five new Provincial Parks were added during the year, bringing the total from 108 to 113. The new parks included *McRae Point Park,* on the east side of Lake Simcoe, and *The Shoals,* 25 miles west of Chapleau.

Three new Wild River parks were established: *Mississagi,* north-east of Sault Ste. Marie; *Chapleau-Nemegosenda,* between Chapleau and Lake Kapuskasing; and *Lady Evelyn,* in the Temagami area.

Over 400 primitive toilets were converted to cement vault-type holding units. Spray irrigation techniques were applied to lagoon sewage systems.

Park facilities were improved with the installation of showers, laundry rooms, flush toilets, hot water supplies and centralized drinking water treatment systems at several parks.

Electrical outlets were installed, expanding the number of parks so equipped to 24.

INTERPRETATION

Interpretation of natural and cultural resources to park visitors continued its upward trend. In 1971, 892,760 visitors attended exhibits, conducted trips and lectures, to learn more about the Province, its parks, environment, resources management and history. The program also helped to protect the parks by combatting littering and destruction, and by orienting new campers and canoeists toward better outdoor recreation practices.

Innovations during the year included a specially-designed children's program (ages 4 to 12) to teach camp craft, history and outdoor games.

Several new audio-visual programs were completed, and new exhibits were developed at Craigleith, Kettle Lakes and Esker Lakes.

WINTER PARKS

During the winter of 1971-2, four parks were operated on a winter basis: Arrowhead, near Huntsville; Pinery, on Lake Huron; Rondeau, on Lake Erie; and Sibbald Point, on Lake Simcoe. Regular park fees for vehicle entry and camping were levied. Facilities included snow-ploughed roads and camping areas; heated washrooms with hot water; central drinking water, fuelwood supply and garbage disposal. Electrical outlets were available in three parks, the exception being Rondeau.

Ski-tow facilities and toboggan slides attracted the heaviest winter use at Pinery: 2,325 skiers, 1,995 skaters, 2,950 tobogganers, and 950 snowmobiles.

SNOWMOBILES TRAILS

Snowmobiling was permitted in many Provincial Parks during the winter of 1971-2. Approximately 200 miles of marked trails and 700 miles of park roads were available for this activity.

With approximately 200,000 snowmobiles registered in Ontario up to December 30, 1971, the rapid growth of this sport has exerted considerable pressure on the environment, and imposed increased costs of administration and control.

Snowmobiling was prohibited in Long Point, Bass Lake, Mara, Springwater, McCrae Point, North Beach, Sandbanks, Killbear, and Algonquin Parks.

Snowmobiling was restricted to designated areas in Pinery, Rondeau, Earle Rowe, Sibbald, Darlington, Emily, Balsam Lake, Presqu'ile, Outlet Beach, Bon Echo, Arrowhead, Mark S. Burnham, Killarney, Kakabeka, Sibley, Lake Superior and Quetico Parks.

In addition to the 300 miles of cross-country snowmobile trails established on Crown lands in the Parry Sound, Lindsay and Tweed Districts, a further 300 miles of trails were under development in Agreement Forests managed by Resource Products Division.

ACCESS POINTS:

During 1971, maintenance and improvements were carried out on 625 public access points. The improvements included the construction of launching ramps, parking areas and primitive toilets.

CANOE ROUTES:

Each year approximately 60,000 persons enter Algonquin and Quetico for interior canoe camping. The sport is growing so rapidly that many enthusiasts are looking for more challenging and less crowded routes. In recognition of this need, a program to document historic canoe routes in northern Ontario was established in 1967. A booklet, "Northern Ontario Canoe Routes", printed in 1971, received wide publicity. This booklet summarizes 125 routes, representing over 11,000 miles of canoeing waterways.

HIKING TRAILS:

Hiking continued to increase in popularity as more trails were provided. Major emphasis was given to the planning of a co-ordinated system of hiking, equestrian and cross-country ski trails to achieve maximum utilization on a year-round basis.

A major accomplishment during 1971 was the completion of a new Rideau Trail, from Kingston to Ottawa, by interested groups of private citizens. Negotiations are underway for the use of the 60-mile abandoned railway line from Tweed to Glen Tay. Additional trail locations were developed during 1971 in Algonquin, Lake Superior and Quetico Parks.

SPORTS FISHERIES BRANCH

Sport Fisheries Branch has three objectives:

(1) to provide and maintain opportunities for sport fishing by residents
(2) to provide and maintain opportunities for sport fishing by tourists to benefit the economy of Ontario
(3) to maintain the quality and quantity of the fishing resource.

ANGLING REGULATIONS

While few changes were made in the Ontario Fishery Regulations in 1971, two amendments are worthy of note.

In the northern part of the province, the usual opening date of May 15 for yellow pickerel continues in effect except that when May 15 falls on a Sunday or Monday, the opening date will be the Saturday immediately preceding May 15.

The second amendment concerns the lake trout season in the border waters between Minnesota and Ontario – Division 22. In this case, a split season, January 1 to the last day of February, and from May 15 to the last Sunday in September, has been established to restrict angling during periods of high vulnerability.

LICENCES

After being in effect for two years, the resident angling licence was withdrawn on April 26, 1971.

SALE OF ANGLING LICENCES

Type of Licence	1969	1970	1971
Non-resident Seasonal	446,024	410,854	420,835
Non-resident 3-day	177,353	186,666	224,000
Non-resident (Organized Camp)	6,998	7,800	7,500
Resident	603,670	562,604	(revoked)
Non-resident Smelt	6,112*	3,155*	4,711*
Resident Smelt	4,493	3,512	8,679
Angler's Bait-Fish	351	294	281
Domestic Dip-net	1,076	1,553	1,204

*Includes non-resident bow and arrow fishermen.

EXTENSION

Three field biologists specialize on this program for landowners. Services presently available are literature, field inspection and advice. Potential demand for such service is great since there are over 62,000 southern Ontario major (50 acres or more) landowners with stream or pond holdings.

PROVINCIAL FISHING AREAS

Twelve areas were operated under intensive management to provide trout fishing for the public. Use increased 25 per cent over 1970 to over 92,000 angler visits. Over 239,000 hours of fishing were provided and 66,000 fish caught.

WATER QUALITY STUDIES

In 1971, the Department expanded its efforts to detect and reduce water pollution in Ontario. The year was marked by the development of improved liaison with other government agencies, together with new approaches to solving problems of mutual concern.

The monitoring of mercury levels in fish was continued, with emphasis on those waters containing species of fish with mercury concentrations above ½ ppm. Problem waters continued to include the St. Clair River, Lake St. Clair, and portions of the English-Wabigoon-Winnipeg River system. Fish entering the domestic and export markets are tested to ensure their compliance with federal health standards.

Greater use of provincial waterways by large, oil-carrying vessels has increased the threat of pollution by oil. The Department, in co-operation with the Ontario Water Resources Commission, undertook the development of a contingency plan for dealing with oil spills. The plan is designed to fit in with federal and international contingency plans involving spills on the Great Lakes, as well as with local plans in other parts of the province. In 1971, the Department provided surveillance and communications assistance on several occasions when an oil spill occurred or threatened to occur.

In recent years, the Department has become increasingly concerned about the possible effects on fisheries of highway construction and maintenance. In 1971, liaison was initiated with the Department of Highways with a view to developing plans for minimizing any adverse effects of highway projects. In the fall of 1972, the two organizations will begin a detailed three-year study to assess the impact of highway construction on a small watershed.

NETTING CREWS

Netting crews stationed at Thunder Bay and Maple continued to construct and repair trap nets for the use of district personnel on field projects. In addition, they provided instruction and guidance and actively participated in some netting projects relative to the collection of eggs for hatchery purposes; provision of fish for exhibitions, pollution studies and fisheries investigations; and the demonstration of impounding gear.

FISHERIES INVENTORY

Ontario waters continue to be surveyed to determine their present and potential capabilities to produce fish, wildlife and recreation. Survey crews were instructed according to rigid standards at a special two-week training course at the Forest Technical School near Dorset.

In 1971, 974 lakes were surveyed. Fishing maps from 207 of the more popular lakes were printed on special water-resistant paper and made available to the public at a cost of 50 cents per map.

Staff from Lindsay District and Head Office carried out the wildlife and fisheries surveys which were the basis of a "Cottage Capacity Study" in the Bottle and Catchacoma Lakes region. This project, known as Lake Alert, is to assess the number of cottages that a specific lake can withstand while maintaining the quality of the environment.

ANGLER SURVEYS

The responses of 20,000 resident and non-resident anglers to an angling questionnaire indicated that 522,000 licenced resident fishermen spent 11.4 million days fishing in Ontario. Since only males over 18 required an angling licence, the total does not include the fishing activity of an estimated 760,000 women and children. Some 411,000 non-resident seasonal and 225,000 three-day licence holders fished an additional 3.7 million days in Ontario and contributed approximately 115 million dollars annually to the economy of the Province.

The most popular fish species sought by tourist anglers were northern pike, yellow pickerel and bass in that order. Ontario residents preferred to fish for yellow pickerel, northern pike, smallmouth bass and brook trout.

PROVINCIAL FISH HATCHERIES

During 1971, construction was started on a large new substation at Chatsworth hatchery. This facility will be ready for rearing up to 800,000 fish in 1972, as a part of the Lake Huron rehabilitation program.

Plans for a very large and complex new production hatchery were prepared jointly by Ministry staff and consulting engineers. This station is planned for construction at a site adjacent to the new Lennox power generating station in south-eastern Ontario near the Village of Bath. The large quantity of water, including a supply of heated water from the hydro plant, will offer an advantage in production unequalled anywhere in North America.

An electronic data processing system was developed for monthly monitoring of hatchery inventory and production cost data. This program will be started at all Provincial hatcheries in 1972.

Investigation into fish diseases at Provincial hatcheries is being continued by the Department of Microbiology at the University of Guelph. A provincial disease control program will be developed as a result of these investigations.

Fish nutrition studies continued at the University of Guelph as alternate ingredients of our standard diet were tested with favourable results.

Public interest in Provincial hatcheries continued to increase with over 100,000 visitors in 1971, including organized groups and school children.

WILDLIFE BRANCH

DEER MANAGEMENT

At present we are attempting to improve deer habitat in the deer range of the southern Shield with several long-term and short-term approaches. These include (a) creating and maintaining an early stage of forest succession to provide for the needs of the deer population year-round, (b) improving and providing winter shelter by preserving and releasing conifers, (c) providing winter food by cutting non-merchantable hardwoods in and around existing cover areas, (d) providing immediate food along deer trails, and (e) creating trails with skidders and bulldozers to improve the mobility of deer during emergency conditions in mid-winter. A combination of all of these methods was used in 1971-2. Provincial and Federal employment programs have allowed us to increase the amount of work done over the past two winters.

We can attempt to create favourable plant communities but we cannot control winter weather. The trend since 1958 has been toward lower temperatures and more snow in eastern North America. This has been particularly evident the last three years, and our deer populations in southern Ontario have suffered as a consequence.

Despite the environmental limitations and a declining deer herd, hunting success in 1971 was as high as it has been during the past decade, and the harvest increased from 16,300 deer in 1970 to 19,400 in 1971. The number of hunters declined by about 2,000 which means a significant increase in hunting success from 19 to 24 percent. This increase was probably due in part to the favourable weather during the November hunt on the southern part of the Canadian Shield.

The first large-scale survey to estimate the size of the deer herd in the southern part of the Canadian Shield was conducted in 1971. About 21,000 square miles were surveyed between Sault Ste. Marie and North Bay to the north, and Ottawa, Peterborough, and Parry Sound to the south. The results indicated an average of slightly over five deer per square mile in the fall of 1970. Densities varied from about 10 to one deer per square mile.

DEER HUNTING, 1971

Forest District	No. of Hunters	No. of Deer Harvested	Hunting Success (Percent)
Fort Frances	2,705	1,424	52.6
Kenora	5,357	2,308	43.1
Thunder Bay	1,171	223	19.0
Sioux Lookout	537	118	22.0
Sault Ste. Marie	2,254	497	22.0
Sudbury	4,740	1,184	25.0
North Bay	322	35	10.9
Parry Sound	18,703	4,172	22.3
Pembroke	5,111	1,004	19.6
Kemptville	4,499	840	18.7
Tweed	19,151	4,282	22.4
Lindsay	10,515	2,076	19.8
Lake Simcoe	1,839	295	16.0
Lake Huron	5,075	959	18.9
TOTAL	82,208	19,425	23.6

DEER RANGE MANAGEMENT, 1971-2

Forest District	Net Area Treated (Acres)	Winter Range Affected (Acres)
Sault Ste. Marie	86	1,670
Sudbury	381	138,000
Parry Sound	227	4,170
Pembroke	2,712	27,100
Lindsay	800	50,000
Tweed	1,523	7,400
Lake Simcoe	10	2,500
TOTAL	5,739	230,840

MOOSE MANAGEMENT

The purpose of moose management, like that of deer management, is to provide a variety of outdoor recreation. In line with this purpose, the first season for hunting moose with bows in Ontario was introduced in 1971. Although no one was successful in bagging a moose, the opportunity to try proved a thrilling experience and a welcome addition to outdoor recreation.

Moose hunting continues to grow in popularity as a form of outdoor recreation in Ontario. In 1971, 68,600 hunters bought licences, but as usual not all managed to get out, and about 63,000 actually hunted, a record for Ontario. They harvested 13,900 moose, the highest return since 1966 when 57,000 hunters bagged 14,500 moose. The number of moose taken is increasing annually, and will soon be as high as that of deer.

Obviously, with more hunters taking fewer moose than in 1966, hunter success must be lower also. In 1971 we had one successful hunter in about five, whereas in 1966, it was one in four. Unfortunately this trend will probably also continue as the competition for available moose increases. Meanwhile, back in the woods many miles from points of access, moose are abundant.

Range surveys during the summer revealed correlations of the occurrence of moose with evergreen cover and with food. Perhaps moose require a certain combination of evergreen shelter and available food plants; we need further studies to find their relative importance. Meanwhile, the forest continues to change; disturbances tend to be favourable to moose, and virgin forests tend to be unfavourable.

BEAR MANAGEMENT

The importance of black bear to recreational activities increases yearly. Approximately 15,000 non-resident hunters were licensed, and permits were issued for the export of approximately 1,000 bears from Ontario in 1971. Approximately 1,400 residents of the Province took out special bear hunting licences in 1971.

There were relatively few nuisance bear problems during 1971. In most instances, Department staff were able to cope with these situations by live-trapping the bears and releasing them in remote areas where their presence would not interfere with human activities.

UPLAND GAME MANAGEMENT

Upland game management objectives include regulations to permit optimum use of resident small game species, several of which are under-harvested; encouragement of practices which increase the production of small game; and accurate predictions of the annual availability of small game. During the 1971-2 season, 369,192 resident small game and summer licences and 7,700 non-resident small game licences were issued.

RUFFED GROUSE

Ruffed grouse populations reached a peak of their cycle over most of the Province in 1967. Since the next peak is not expected before 1975, the outlook is for better hunting over the next four years or more. Hunters on foot took 31.9 grouse per hundred hours in 1971, compared with 30.7 in the previous year. Hunters on bush roads took 5.1 grouse per hundred miles, a slight increase from the average 4.0 recorded in the previous year.

SHARP-TAILED GROUSE

Northern sharp-tails are still low in numbers in the James Bay and Hudson Bay lowlands but should build up to a cyclical peak in the next five years or so. The numbers of birds harvested per hundred hours of hunting in Fort Frances District during the 1969, 1970 and 1971 seasons were 153, 137 and 46, respectively.

RING-NECKED PHEASANTS

Ontario winters limit the breeding distribution of pheasants to a relatively narrow fringe of range north of Lake Erie and the western margins of Lake Ontario. Areas, which receive much over 50 inches of snowfall per season, support few, if any, ring-necks. The future for this important game bird does not look bright in Ontario because of changes in the farming methods which have drastically reduced essential winter and nesting cover.

Because of low breeding populations of pheasants over much of their range, the success of hunters is largely dependent upon the release of pen-raised birds before the hunting season. The Department has produced pheasant chicks and poults each year for this purpose on provincial game bird farms at Normandale and Codrington. Pheasants reared to adult size, and released just prior to the open season, put a very much larger percentage of birds in the hunter's bag, and this practice is being encouraged.

HUNGARIAN PARTRIDGE

Partridge are live-trapped annually in Kemptville for introduction into other areas of suitable habitat in sourthern Ontario. Recent release sites include the Stayner and Beeton areas and Lambton County. In eastern Ontario, Hungarian partridge populations were high between 1966 and 1968, but declined in 1969 and are currently at low levels. The number of birds bagged per hunter was 2.9 in 1968, and then fell to 1.4, 1.1, 1.7 in 1969, 1970 and 1971, respectively.

BOB-WHITE QUAIL

Quail are limited to the Lake Erie area where best populations occur in areas of suitable habitat in the Counties of Lambton, Kent, Essex, Elgin and southwestern Middlesex. Quail numbers have increased considerably in the past decade, and open seasons have been established in the five Counties. A sample of Lambton and Elgin County hunters, who were checked in the field, required an average of 2.8 hours to take one quail in 1970.

WOODCOCK

The U.S. Fish and Wildlife Service co-ordinates a spring survey of singing male woodcock over their entire breeding range. Ontario first participated in 1968 and has continued this survey to the present time. It has shown that Ontario supports one of the highest woodcock populations on the continent. The 1969 season was a better year for woodcock hunters in Ontario, and an estimated 76,000 birds were harvested, compared with 59,000 in 1970 and 60,000 in 1971. In Ontario, woodcock are gaining in importance as a wildlife species sought after by hunters and non-hunters alike.

SMALL MAMMALS

Varying hare numbers continued to increase generally across the Province. In the next one or two years, they should reach peak abundance in their 10-year cycle. Cottontail rabbits and European hares, our more southerly "rabbits", stayed at moderate levels of abundance. The woodlots of southern Ontario again show an abundance of squirrels, and raccoons are even more plentiful than in previous years.

INTERPRETIVE PROGRAM

The newly formed Wildlife Interpretive Program laid the ground work for its mission of explaining the principles of wildlife biology to Ontario citizens. The program's goals include giving assistance to the public in their quest for more knowledge of wildlife and helping people to better understand the place of man in nature. Districts were active in this field, creating marsh boardwalks, interpretive trails, viewing blinds and habitat management demonstrations on Crown land and Extension Agreement Area lands.

PREDATOR MANAGEMENT AND CONTROL

Department staff conducted 115 investigations of predation on wildlife, domestic stock and private property during 1971. Seventy-two control programs resulted from these investigations in which 16 timber wolves, 21 coyotes, 6 bear and 43 domestic dogs were removed from the problem areas.

Predator control training and workshops were conducted in three districts during the year. Instructions are provided to Department staff and other interested persons in the conventional methods of controlling problem animals.

A total of $58,072 was expended for bounty payments on wolves and coyotes in 1971, approximately $10,000 less than that of 1970. This included payment on 1,157 timber wolves, 2,065 coyotes and 86 coyote-dog hybrids. Approximately 300 fewer timber wolves were bountied in 1971, as compared to 1970, while coyotes and hybrid numbers did not change significantly.

PROVINCIAL WILDLIFE AREAS

PHEASANT HUNTING AREAS

Pheasants were released in good cover (in number according to demand) on four hunting units in Provincial Parks as well as on the Gananoque Provincial Wildlife Area in 1971, and many man-days of pheasant hunting were enjoyed in areas where normally this recreational pastime would not occur because four of the five units are outside the native pheasant range. Approximately 4,500 birds were released, mainly in these five areas.

LANDS ACQUIRED FOR WILDLIFE PURPOSES, 1962-72

Area	County	Acres 1962-72	Acres 1971-72
Luther Marsh	*Dufferin	1,275	225
Rankin River	*Bruce	1,314	175
Angle Ditch Marsh	*Bruce	200	–
St. Edmunds	Bruce	4,404	–
Dept. Highways transfer	various	1,062	–
Hullet Marsh	*Huron	3,293	988
Holland Marsh	*Simcoe	1,298	–
Tiny Marsh	*Simcoe	2,246	–
Nonquon River	*Ontario	2,647	198
Wye Marsh	*Simcoe	2,417	–
Dalton	Victoria	100	–
Brighton	Northumberland	957	3
Murray Marsh	*Northumberland	1,593	–
Gananoque	Leeds	1,046	–
Winchester	*Dundas	3,600	–
Hoople Creek	*Dundas	356	356
Charlottenburg	Stormont	258	–
Millbrook	Durham	188	–
Long Point	*Norfolk	90	–
Dalhousie Tract	Lanark	935	–
Lavant Township	Lanark	6,225	925
Watt Township	*Muskoka	266	–
MacCauley Township	Muskoka	1,220	–
Spence Township	Parry Sound	800	–
Camden Lake	*Lennox and Addington	720	421
Mountain View	Prince Edward	154	–
Total		38,664	3,291

* Wetland Projects

PROVINCIAL WATERFOWL HUNTING AREAS

Five waterfowl management units within Provincial Parks and one Provincial Wildlife Area where blinds are provided were in operation again in 1971 to provide the public with reasonable quality hunting opportunities for ducks and geese. In addition, waterfowl hunting opportunities were provided on the following Provincial Wildlife Areas: Fingal, Puslinch, Luther Marsh, Isaac Lake, Tiny Marsh, Holland Marsh, Nonquon River, Brighton, Gananoque and Winchester.

WILDLIFE EXTENSION PROGRAM

During the 1971-2 hunting season, 12 Wildlife Extension Agreement Areas were in operation for hunting and viewing. Law enforcement and wildlife management assistance are offered to landowners as an incentive to allow public access to their properties.

FIELD SERVICES

Field Services is a Section concerned chiefly with fish and game laws and their application to enforcement by Conservation Officers. This Section also provides for the distribution of regulations to field officers and the publication of the Hunting Summary. It includes Nuisance Animal Control, Conservation Officer training in law enforcement, hunting licence examinations and the operation of the Central Licence Bureau.

LAW ENFORCEMENT

The powers of a Conservation Officer include the powers of a peace officer while enforcing the provisions of The Game and Fish Act and has been upheld in all appealed cases.

There are some 291 Conservation Officer classifications in the field; 108 of these occupy positions as supervisors, detachment heads, Fisheries Management Officers, Wildlife Management Officers, Predator Control Officers or hunting licence examiners. The remaining 183 have a designated area to patrol with full responsibility for law enforcement. The number of patrol areas has not changed significantly in the past 10 years.

Conservation Officers are often assisted by the Royal Canadian Mounted Police, the Ontario Provincial Police and Deputy Conservation Officers.

LAW ENFORCEMENT TRAINING

Some 24 Conservation Officers and technicians received lectures dealing with law enforcement in the Fish and Wildlife Certificate Course at Ontario Forest Technical School in Dorset. Officers trained now total 515. In total, 144 officers have received training at the Ontario Police College in Aylmer. No training was available at the Police College in 1971-2.

HUNTING LICENCE EXAMINATIONS

Hunting licence examinations continue to be held throughout the Province. Examination papers have been revised and up-dated and are available also in the French language. Hunting accident rates have declined since the inception of this program. Some 25,174 prospective hunters were examined during the year; of these 21,704 passed, and 3,470 failed. Failure rates in the large urban centres are greater than those in rural locations.

SEIZURES AND CONVICTIONS

Seizures during the year totalled 4,296, involving some 3,691 convictions, a reduction from 4,402 convictions the previous year. In addition, some 605 cases were either unknown, dismissed or pending court proceedings. Total fines assessed during the year amounted to $132,897.00.

FREQUENCY OF VIOLATIONS, 1971-2

	No.	%age
Fishing without a licence	244	6.6
Hunting without a licence	423	11.5
	667	18.1
Over-limits of fish	496	13.4
Loaded firearms in vehicles, vessels snow-machines or ATVs	565	15.3
Angling too many lines	273	7.3
Failing to wear identification badge	221	5.9
Hunting during prohibited hours & jack-lighting	197	5.3
Taking fish by means other than angling	155	4.1

During the fiscal year, the seizures sub-section at head office, Toronto, was decentralized to the field. District Offices now retain all seized articles of equipment. Those which become the property of the Crown are sold at public auction. This provides improved service to the public, at the local level, regarding disposition or return of articles seized.

LAND MANAGEMENT DIVISION

ENVIRONMENTAL PROTECTION BRANCH

Environmental Protection Branch duties and responsibilities are as follows:

FOREST PROTECTION

Forest Fire Control. Administration of The Forest Fires Prevention Act; organization of fire districts and the fire warden system; supervision of fire control planning and preparedness; fire prevention programs including a system of travel, fire and work permits; co-operative fire prevention and control agreements with municipalities, railways, forest industries and other agencies; detection of forest fires, and fire danger warnings; training of staff and co-operators in fire control techniques; prescribed burning; co-ordination of fire suppression; and movement of resources and emergency arrangements.

Forest Pest Control. Prevention and control of damage by insects, diseases and other pests affecting forests under Department management; and advisory services.

Communications. Planning, installation and operation of radio, telephone and teletype services for fire control and other Department requirements; and construction of specialized communication equipment.

AIR SERVICE

Operation of a fleet of aircraft to meet flying requirements of the Department and special needs of other Government Departments; selection and training of pilots and air engineers; deployment of aircraft and crews; establishment of airbases, fuel distribution and caches; selection of aircraft equipment and development of special equipment; leasing and disposition of helicopters and other aircraft; checking pilot proficiency; and maintenance of aircraft.

MECHANICAL EQUIPMENT

Planning mechanical equipment programs, budgetting for new and replacement equipment, standards for operation and maintenance of mechanical equipment, and vehicle fleet management.

ENVIRONMENTAL QUALITY

To identify environmental quality problems affecting land and water under public and private control; to develop environmental protection policies, standards, guidelines and contingency and other plans in respect of the responsibilities of the Department; co-ordinate environmental quality considerations internally and externally with Branches, Divisions, Departments and Agencies in respect of the responsibilities of the Department of Lands and Forests; influence policies and standards of other Departments and organizations in respect of base resources of concern to the Department of Lands and Forests.

FOREST FIRE CONTROL

The 1971 occurrence of 1,782 fires was above the decade (1962-71) average of 1,497 fires per year. The 36,000 acres burned over in 1971 also exceeded the average of 30,380 acres.

June again proved to be a critical month in that one half of the acreage was destroyed during this period.

For the 1971 fire season, the 80/20 per cent split between the numbers of man-, and lightning-caused fires was typical of past experience.

In terms of fire season severity, 1971 presented Ontario with a higher degree of exposure to critical forest fire danger conditions, i.e., highly favourable for burning, than in the previous three years. However, the 1971 average fire size of 20 acres per fire matches the decade average.

CONTROL OPERATIONS

The Fire Centre. A new concept in forest fire management was introduced in part of the Northwestern Region of the Province when a fire centre was located at Dryden to co-ordinate fire control efforts over a 55,000-square-mile area. This included all or part of the Kenora, Fort Frances, Sioux Lookout and Thunder Bay Districts.

Fire centre staff consists of a co-ordinator, air attack officer, detection officer, and a communications operator.

At the fire centre, a daily planning session is held where all information relating to fire weather, risk, hazard and the current fire situation is analyzed. Decisions are made regarding the detection need, air tanker readiness, and fire suppression resource need. Implementation of the plan, with revision to take care of changing conditions, is the responsibility of the fire centre staff.

Detection. Aircraft of many types provide the primary means of organized detection over a large portion of Ontario. The system is flexible and uses both Department and commercial aircraft. Aerial patrols can be planned on the basis of fire risk and fire danger, and areas can be covered as often as the fire risk dictates. Experience has proven that aerial detection systems can operate economically and provide the coverage required.

The use of light twin-engine, land-based aircraft is increasing as they can cover areas more quickly and more economically.

The co-ordination of aerial detection over large areas appears to improve the system.

Lookout towers still provide organized detection in some areas of the Province and can give continual surveillance over high-risk, high-value areas.

The public role in the detection of forest fires is extremely important. Historically, the public has discovered from 50 to 65 per cent of all fires in the Province. This assistance is encouraged by publicizing telephone numbers that people may call to report a fire at any hour of the day or night.

Suppression. The basic fire suppression force was composed of 130 five-man fire attack crews trained in fire suppression. The fire crews were supported by 38 fire-bombing aircraft.

The fire-bombing fleet was complemented by the addition of three land-based TBM Avenger aircraft, based at Dryden Airport. These Aircraft can deliver long-term fire retardants which are effective in holding a fire until the ground crews arrive.

Water-dropping aircraft can hold fires to small sizes in areas where land-based aircraft cannot be used. Together, the land-based and water-based aircraft provide a potent air attack weapon.

FIRE CONTROL TRAINING

Fire Suppression Course I, a four-week course of instruction for personnel designated to man the supervisory positions in the fire crew system (initial attack fire boss or sector boss), has been the foundation of our training program. Since 1962, 563 personnel have successfully completed these courses, which are conducted at the regional level three times a year. The curriculum is constantly being updated, and candidates learn of the latest fire control methods and their application in forest fire suppression.

Fire control managers at the senior levels (Chief Forest Rangers, Forest Protection Supervisors, etc.) receive training at Fire Suppression Course II. Including the 23 graduates in 1971, some 70 personnel have received instruction since the course inception in 1970.

In 1971, three slide-tape presentations were prepared for basic fireman training, and two more are planned for production in 1972. The object is fire fighting procedural uniformity across the Province to enhance the utilization of any fire attack crew anywhere in Ontario.

FIRE PREVENTION

A program of varying intensity is carried on at all levels of the organization. Division programs are basically person-to-person oriented, concentrating on children at the primary school level.

Television and radio stations throughout Ontario assist in broadcasting the forest fire danger forecast and forest fire situation, report on a regular basis during the fire season. Co-operative programs have been developed with the Provinces of Quebec and Manitoba.

DEVELOPMENT WORK

Grumman CS2F Tracker. The Department acquired a surplus military aircraft, the Grumman CS2F Tracker, and converted it to a fire bombing configuration. The aircraft was test-flown, and drop pattern studies were initiated. Preliminary trials indicate that the aircraft exhibits all of the desirable characteristics of a good fire bomber. The Tracker was built by DeHavilland Aircraft under licence from Grumman Aircraft Corporation. It was in military service on the aircraft carrier, Bonaventure. It is a twin-engine aircraft capable of carrying 800 gallons of retardant at a speed of 200 m.p.h.

Infra-Red Scanner. The airborne infra-red fire mapper was exposed to operational testing during the 1971 fire season. Results indicated further exposure in 1972 should bring the system to a point where useful information on going fires can be provided to the fire boss or Chief Forest Ranger. The fire-mapper can give accurate maps of smoke-obscured fires. The possibility of night-time mapping is to be explored.

PhiTran Automatic Weather Station. The remote radio-controlled weather station obtained in 1970 was placed in operational service in Sioux Lookout District during 1971. This instrument can provide needed fire weather data for locations not served by other means. Experience indicates this type of a system can be beneficially applied in our operations.

Equipment Evaluation. Forest fire suppression equipment which might have application in Ontario is evaluated by the Forest Fire Equipment Evaluation Program. During 1971, tests were conducted on several types of fire hose and various pieces of camping gear.

Prescribed Burning. Prescribed burning is an approved forest management technique in Ontario. This tool is available to the forest manager to regenerate forest sites, prepare areas for planting, remove hazardous fuel conditions, or improve wildlife habitat. Each burn is co-ordinated with the agencies responsible for air quality and public safety. A total of 1,900 acres were treated under this program in 1971.

Fire Danger Measurement. The Canadian Fire Weather Index is the fire danger measurement system used in Ontario. Further development of the use of this relatively new system was carried out. Studies relating fire behaviour to the various index values, and in the use of a computerized index forecasting system, were carried out.

General. Nozzle crew competitions were held in the Northeastern and Southern Regions in 1971. The purpose of these competitions is to maintain a high degree of proficiency in preparedness and fire line construction and to encourage team spirit among the fire fighters of the Department. The regional winners were:

Northeastern Region – Swastika District

Southern Region – Lindsay District

FOREST PEST CONTROL

In 1971, the spruce budworm was again the dominant insect and disease problem. Infestations of this insect were prevalent in three general locations – west of the lakehead, the north-central and north-eastern area, and the south-eastern area.

In northwestern Ontario, the infestations south of Northern Light Lake persisted on a small scale. The new infestation along the International Border in Quetico Park was confirmed in 1971 as covering some 130,000 acres. Strategic portions of this area were sprayed in an effort to prevent the infestation from spreading.

In north-central and north-eastern Ontario, the budworm infestations expanded in 1971 and were more or less continuous from Lake Superior to the Quebec border, covering a total of about 13,400 square miles.

The area affected by the budworm in southeastern Ontario increased sharply in 1971 to slightly over 7,000 square miles from 2,500 in 1970.

In total, the gross area affected by the spruce budworm was approximately 20,600 square miles or 13.2 million acres. In assessing the significance of this infestation, it is important to realize that, over much of this area, balsam and white spruce are not vital commercial components of the forest during this rotation.

The jack-pine budworm population continued to decline in Pembroke District, and started to decline in the Lake Nipissing-French River area. However, the southern portion of the infestation north of Parry Sound remained very active and spread eastward into Brown Township. In northwestern Ontario, where populations of the budworm collapsed in 1969, there was some indication of renewed activity south-east of Dryden in jack-pine stands along the Sioux Lookout-Kenora District border.

The principal area of forest tent caterpillar activity was the infestation extending west and north of Fort Frances. It continued to expand in 1971. A new area of infestation appeared at Pipestone Lake on the Fort Frances-Kenora District boundary.

The European pine sawfly did not extend the range of its occurrence during the year, but it did become more noticeable in most areas. The main body of its range in southern Ontario is south of a line roughly from Midland to Kingston. The insect also occurs on Manitoulin Island and on ornamental plantings in Sault Ste. Marie, North Bay and Ottawa.

The large aspen tortrix, a close relative of the spruce budworm, continued to be very active across the entire breadth of northern Ontario, defoliating trembling aspen in many areas. Most trees will survive despite four or five consecutive years of defoliation.

The activities of the birch leaf skeletonizer also increased in 1971 to cover many areas throughout the Province from the Manitoba border to southern Ontario. Birch trees were browned in late summer over an area well in excess of 25,000 square miles.

The Dutch elm disease is spreading northward at a slow rate because of the scattered occurrence of the elm tree in northern Ontario. The most northern record of the disease is east of Cobalt.

The scleroderris canker of red and jack pines continued to cause some mortality of natural regeneration and young plantations of these species in several local areas across northern Ontario. Increasing attention is being paid to this disease in an effort to determine its current and potential impact on the survival of young trees.

CONTROL OPERATIONS

The total area sprayed in 1971 to control the spruce budworm amounted to slightly over 80,000 acres. Most of this was in northwestern Ontario where spraying continues to be aimed at controlling the budworm, rather than protecting the foliage on the trees, which is the basis for spraying in northeastern and southern Ontario.

In northeastern Ontario, portions of Missinaibi, The Shoals, and Lake Superior Provincial Parks were sprayed to keep trees in a green condition. Total acreage was 8,600.

Operations to control the white-pine weevil totalled approximately 3,500 acres. The principal area was in Sault Ste. Marie District where 1,500 acres were sprayed from the air.

The balance of the weevil control program is in sourthern Ontario where treatment is by back-pack sprayers, and by hand-clipping infested shoots.

Several species of sawflies damage pine and spruce plantations, principally in southern Ontario, and in 1971 a total of about 5,000 acres were sprayed for control of the red-headed, European, and jack-pine sawflies, and the yellow-headed spruce sawfly. As part of the program to control the European spruce sawfly, the Department collects and uses (and distributes to interested plantation owners) a virus which is effective in killing the insect.

The major tree-killing disease in the forests of Ontario is the white-pine blister rust. A substantial control program has been in progress for several years to protect the trees in specific areas managed for the production of white pine. The disease is controlled by using the herbicide 2,4,5-T as a spot spray to kill the other plants (wild currants and gooseberries) necessary in the disease's life cycle. In 1971, approximately 4,000 acres of high-value young pine stands were protected against the rust in parts of the Sault Ste. Marie, Pembroke, Lindsay, Tweed and Kemptville Districts.

The entrance of annosus root rot into southern Ontario pine plantations is prevented by the application of sodium nitrite solution to the freshly cut stumps during thinning operations. In 1971, about 2,000 acres were treated in this manner.

ENVIRONMENTAL QUALITY

The following activities were undertaken in 1971-72.

Study of legislation and regulations pertaining to environmental quality and co-operation in determination of needed revisions, e.g., The Lakes and Rivers Improvement Act.

Devising standards and guidelines, e.g., pipelines on Crown lands.

Policies and guidelines re waste disposal, e.g., garbage dumps on unorganized lands.

Devising and co-ordinating production of position papers on a wide range of policy strategies, e.g., snowmobiles and all-terrain vehicles, motor boats, and once-through cooling in respect of new power plants.

Co-ordinating environmental impact studies, e.g., location of new electrical power plants.

Co-operating with other departments in devising oil and hazardous materials contingency plans.

Representing the Department on various task Forces and committees, e.g., Sub-committees on Energy and the Environment, Task Force Hydro, Private Dams Committee, Litter Control Task Force, Interministerial Task Force on Oil and Hazardous Materials Contingency Planning, and Generating Station Siting Task Force.

COMMUNICATIONS

Mid-1971 saw the installation of a Communications Centre on the fifth floor of the Whitney Block in Queen's Park. By remote control therefrom, via several landline circuits, the SSB and VHF radio equipment located at Maple twenty miles distant, is operated and provides a back-up facility to Telex system forming a portion of the Centre. Six SSB channels at one kilowatt power output and six VHF channels at fifty watts power output are available. The Centre provides province-wide communications, both air and ground, and a local mobile facility.

Initial steps toward a complete province-wide change to FM radio communications were taken in 1971 when the Lake Erie District was supplied with total replacement equipment including mobile, ground, patrol vessel and portable units for Parks, Fish & Wildlife and Forest Fire Control purposes.

Radio facilities supplied for Dryden Fire Control Retardant Base operation from the Dryden Airport included SSB, VHF 46 MHZ, and 122.9 MHZ, an SSB/VHF repeater system and Telex.

Several additional Telex installations were made throughout the province, bringing the total to 46 with 13 of them being seasonal and removed from service in the off-season winter months.

MECHANICAL EQUIPMENT

The fixed complement of various types of land motorized vehicles is steadily increasing each year and now amounts to some 1,600, including 242 tractors, 583 trailers, 349 snowmobiles and 12 motorcycles. The complement of vehicles increases for peak period use by utilizing replaced vehicles and rentals to a figure in excess of 2,000.

Specialized vehicles are becoming part of the fleet. Examples are a fish hauling tanker, garbage packers, and sewage tankers. Canopys for pick-up trucks are becoming a popular option.

Air compressors boats, motors, fire pumps, electric Generators, chain saws, lawn mowing equipment, water pumps and stationary engines make up an additional 4,000 pieces of equipment.

With this volume of equipment, the present mechanical staff and facilities cannot continue to maintain the fleet in accordance with our minimum standards. Consequently, a

portion of equipment maintenance is done by commercial garages.

The automated data processing system for the fleet management program is now operational in ten districts and will be gradually implemented in other districts.

AIR SERVICE SECTION

The Section currently maintains a fleet of 43 aircraft, operated out of 20 bases, to meet flying requirements of the Department and special needs of other Government departments and agencies.

Helicopters were leased for varying periods during the year to provide transportation in forest fire fighting and other Department operations.

Total flying time for the year accumulated on Department aircraft was 15,895:05 hours. The total number of passengers carried was 56,893, and the total load carried was 29,809,099 pounds.

Thirty mercy and emergency flights were carried out by aircraft as well as an emergency ambulance service at Moosonee during spring break-up and fall freeze-up. These flights accounted for a total of 96:15 hours.

One Grummen CS2F Tracker was purchased and converted to a fire bomber to deliver long-term fire retardant.

LANDS AND WATERS BRANCH

CONTROL SECTION

The chief duty of the Section is the management of public lands in the Province, including the orderly disposition thereof, and the acquisition of privately owned lands for various Government purposes.

It is interesting to note that, fifty years ago, patent documents were issued for about 100,000 acres of land during a one-year period, while in the 1970s the yearly average was less than 4,000 acres.

During the past year, land use permits totalled 7,499, and other transactions amounted to 2,522.

A decrease of 1,108 in 'other transaction' on the year was due to a temporary withdrawal of summer cottage lots in 1971 to facilitate the transmission from sale and patent to a lease method of disposition. At about the same time, more rigid health requirements were imposed, resulting in many of the lots being permanently withdrawn because they did not measure up to the revised standards. New regulations adopted in May, 1971, restricted the sale of private summer cottage lots to Canadian citizens, for a period of one year, following the registration of a subdivision plan.

The land acquisition program has been responsible for securing about 467,311 acres of privately owned land for government purposes since its inception in 1962. Of this totals 17,712 acres were purchased during the past year.

Special emphasis was placed on acquiring land on the Niagara Peninsula where 2,950 acres were purchased for recreational purposes, an additional 1,032 acres were purchased in the Bronte Creek area for a major urban-oriented park.

Under Section 17 of The Public Lands Act, any area in a territory without municipal organization may be designated by the Minister as a restricted area for the purpose of controlling building on private land. Two new areas were so designated during 1972, bringing the total to 19. One was designated to protect the aesthetic qualities of Lake Superior Provincial Park, and the other to control residential development in a proposed new mining venture, north of Ignace.

LAND USE CO-ORDINATION SECTION

The purpose of this Section is to co-ordinate the use of Crown land to meet the objectives of the Ministry requiring a land input. Our objective is an integrated land use plan for Ontario.

LAND AND WATER INVENTORY

One of the basic building blocks for our land use planning concept is the land inventory. During 1971-2, we completed the inventory for the settled portion of the Province, which comprises roughly 32 per cent of its total area. Work was also extended to important areas outside the settled portion.

Field work was undertaken, by the recreation sector, to obtain the information concerning local land and water features which were required to compile Ontario Land Inventory Recreational Use Capability Maps for 150 map sheets of a scale of 1:50,000.

The forestry sector was primarily engaged in an office project, compiling tabular summaries of the components of each land unit of the Ontario Land Inventory Land Classification maps which had been published at that time. Compilation of summaries was completed for 28 map sheets of a scale of 1:250,000.

Since there were insufficient field records for five 1:250,000 map sheets in northwestern Ontario, field work was undertaken to secure this information. In addition, field work was undertaken to permit the production of land classification and timber use capability maps for one 1:250,000 scale map area to test the mapping systems which were proposed for a forthcoming program to extend the land inventory to an additional 18 map sheets.

In the wildlife sector, land classification for southern Ontario became available to supplement the information which was used to produce Canada Land Inventory Land Capability maps for ungulates. Consequently, field work was undertaken over an area of eight 1:250,000 scale map sheets in southern Ontario to evaluate wildlife use capability rating, using this additional land classification material.

LAND USE PLANNING

During 1971-2, we consolidated our ideas concerning the preparation of the Strategic Land Use Plan for Ontario in a booklet entitled "The Guidelines for Land Use Planning".

Ongoing work consisted of participating in the planning for such areas as – Lake of the Woods Area, Quetico Provincial Park, Lake Superior Provincial Park, Polar Bear Provincial Park, Killarney Provincial Park, Sibley Provincial Park, Algonquin Provincial Park, Lake Temagami Area, and Hudson-James Bay Lowlands Area, and Pilot Land Use Study, Kemptville.

We initiated and completed Phase 2 of the Lake Alert Project which is a research study to determine an appropriate methodology for measuring appropriate lake development capacities for Crown areas. Basically, we are looking for the appropriate level of cottage development on a given lake that will not impair the natural environment.

INTER DEPARTMENTAL CO-ORDINATION

As Crown land is a major input into the production of goods and services provided by other agencies of government, our planning for the use of Crown land must be co-ordinated with theirs.

Official Plans. We provided assistance in the form of background resource data to a number of Planning Boards preparing Official Plans under the Planning Act.

Regional Development Plans. We participated with the Regional Development Branch in analysing Phase 1 reports for the Lake Erie, Lake St. Clair, Lake Ontario, Eastern Ontario, Georgian Bay and North Eastern Ontario Regions.

We also seconded one of our key staff, along with part time support, to the Branch to assist in the Phase 3 Refinement of the Toronto Centred Region Plan.

Our staff also participated in the work of the two Inter-Departmental Liaison Committees for Regional Development including the efforts of a variety of Task Forces. An environmental background appraisal for the counties of Elgin and Middlesex was completed for that portion of the Erie Region at the request of the Erie Economic Council.

Miscellaneous Planning. We assisted other agencies in planning areas of Provincial significance. This included a re-assessment of the Gertler Report for the Niagara Escarpment, participation in the Environmental Appraisal for the Haldimand-Norfolk Study, and the report for the Rideau-Trent-Severn Area. The planning of two extensions to the CORTS area, namely Lake Simcoe and the Bay of Quinte, was started.

Subdivision Plans. We analysed proposed, private subdivision plans for summer cottage purposes from the standpoint of their affects on our objectives and the natural environment.

MAPS

		Map Scale	
(a)	*Canada Land Inventory*	1:250,000	1:50,000
	Land Capability for Recreation	8	231
	Land Capability for Wildlife – Ungulates	5	139
	Land Capability for Forestry	3	
(b)	*Ontario Land Inventory*		
	Land Classification	8	
	Timber Use Capability	8	
	Wildlife Use Capability		184
	Recreational Use Capability		19
	Total of Maps	32	573

Completed by Drafting Sector 605

The expenditures which were funded by the federal government are listed as C.L.I. and those funded by the province as O.L.I. (below).

Expenditures	C.L.I.	O.L.I.	Total
Salary	$108,265	$220,204	$328,469
Travel	1,500	21,345	22,845
Maintenance	16,562	49,125	65,687
Equipment		8,425	8,425
Total	126,327	299,099	425,426

SURVEYS AND ENGINEERING BRANCH

SURVEYS SECTION

ADMINISTRATIVE SERVICES

The Subsection is responsible for administrative support service; custody of survey records; and the distribution and sale of reproductions, Department publications, and of printed maps produced by the Department and the Department of Transportation and Communications, and those of the National Topographic Series. During the past year, the lake contour series, produced by Sport Fisheries Branch, was included.

A marked increase (46 per cent) in the sale of maps of the Provincial Topographic Series in the past year indicated public acceptance of these maps which now show survey fabric and the extent of lands alienated from the Crown.

Enquiries for historical and genealogical information continued to be dealt with. Cataloguing and filing of survey plans, field notes and other survey records was continued.

DRAFTING SERVICES

The Subsection is responsible for the production of plans of townships and unsurveyed territory maintained as an up-to-date graphic inventory of Crown land; plans to be used for illustrating parcels of land to be patented, leased, licensed and otherwise disposed of; plans illustrating parcels of land to be set aside for various specified purposes such as provincial parks, or to be subject to hunting and fishing regulations; and, study plans, special use plans, charts, graphs and miscellaneous drafting both for the Branch, Department and, on occasion, for other departments. The Subsection compiles the land status information required for the preparation of the new, and revision of existing, one-inch-to-two-mile Provincial Topographic Series maps.

CARTOGRAPHIC MAPPING

The one-inch-to-two-mile Provincial Series mapping of Northern Ontario continued with production of eight new maps in the Thunder Bay, Rainy River and Kenora Districts and the revision of seven existing maps. As maps of this series are revised, survey fabric is added, together with colour, depicting lands separated from the Crown, to conform with the new maps of the series. The following maps were produced:

Heaven Lake; Rat Portage; Northwest Angle; Stratton; Gull River; Mount Royal; Thunder Bay; Kaministikwia; Sault Ste Marie (2nd edition); Michipicoten (2nd edition); Gogama (4th edition); Chapleau (3rd edition); Calstock (2nd edition); Biscotasing (2nd edition); and Bark Lake (2nd edition).

Total coverage of the Province with one-inch-to-eight-mile 'Territorial Series' maps was realized with the printing of Map 26 "Kenora Patricia Portion – Northeast". Another map of this series, Map 24 "Kenora – Rainy River" was updated and printed, while Map 21 "Southern Ontario" was being entirely remade.

The following special-use maps were produced at the request of various Branches.

One-Colour Bases: White River Administrative District; Toronto Centered Region; Pembroke District Units; Thunder Bay Administrative District; Lake Erie Blocks and Tracts grid; and Maps for Public Hunting Areas booklet.

Multi-Colour Maps: Hunting Regulation Summary; Map for Beaver Colony booklet; North Georgian Bay Recreation Reserve Land-Use; Ontario Map for Forest Industry folder; Map for Moose Distribution booklet; and Map 56A "Quetico Provincial Park".

The Ontario Map Catalogue, listing all maps produced by the various agencies within the Ontario Government, was revised.

LEGAL SURVEYS EXAMINATION

Instructions for retracement, restoration and subdivision surveys, to be performed both by departmental surveyors and surveyors under contract, are prepared by this Subsection.

A responsibility of the Subsection is the examination of compiled plans and plans of surveys required for the alienation of Crown lands to ensure compliance with departmental policy and statutes. These plans include those of individual cottage lots, commercial and industrial locations, water lots, and Crown subdivisions.

Returns from surveys, performed under instructions such as restoration, retracement and municipal surveys not required for the alienation of Crown land, were examined for compliance with statutes and instructions.

Staff field surveyors, located at Tweed and Parry Sound, carried out surveys for administrative purposes. These included those required in the determination of encroachments on Crown lands and the resolution of problem situations resulting from ambiguous wording of former Crown grants, as well as inspection, park boundary and improvement, and other miscellaneous surveys.

A township boundary maintenance program was developed for northern Ontario with funds available through the Ontario Seasonal Employment Program, as an adjunct to the existing resurvey (retracement) program. In three months, 174 miles of township boundary were re-opened.

Under a cost-sharing agreement with the federal government, a geodetic survey project was carried out in the Barrie-Orillia-Midland-Bradford area (BOMB). It was to provide additional horizontal and vertical survey control in the northern portion of the Toronto Centred Region.

In agreement with the Province of Quebec, surveys were undertaken to enable restoration of monuments on the portion of the Ontario-Quebec boundary between Lake St. Francis and the Ottawa River.

THE ONTARIO GEOGRAPHIC NAMES BOARD

During the 1971-2 fiscal period, the Board (through its Secretariat) edited 71 maps and charts. For purposes of map and chart compilation and revision this included the up-dating of (a) existing geographical nomenclature with the addition of new names, or, alternatively, deletion (based on Board decisions sanctioned by Minister) of inaccurate or otherwise unacceptable names; (b) changes in name application (i.e. transfer of a name from a former place, e.g. railway station to that of an adjacent and associated place, e.g. community); (c) orthography based on linguistic norms; (d) choice of official language in bilingual regions where only one can be used; (e) provision of data on name origins; (f) information on the status of municipal and other legal territorial divisions associated with place names; (g) more accurate cartographic positioning of names relative to places or features designated; and (h) more precise fixing of the same geographical features and places in terms of geographical co-ordinates.

In an expanding field of national and international research in toponymy, the OGNB continues to play an active and significant part. With reference to recent national problems of bilingualism in map production, the OGNB assumed a decisive role following appointment in May, 1971, of the Board Secretary as Chairman of the CPCGN Subcommittee for the Study of a National Policy for Geographical Names on Canadian Maps.

Other papers dealing with hitherto unresolved problems in terminology, classification and questions of linguistic priorities in toponymy were prepared by the Board Secretary. These were (a) published by the International Centre for Research on Bilingualism, Laval University, and (b) submitted for presentation in England at the Second United Nations Conference on the Standardization of Geographical Names, London, May, 1972.

ENGINEERING SERVICES SECTION

Engineering support continued to be supplied to head office operating branches and districts in those aspects of departmental programs requiring professional engineering, application of engineering technology, and construction expertise.

CAPITAL WORKS AND MAINTENANCE OF FACILITIES

Co-ordination and planning of the major capital works program of the Department was effected through liaison with the Department of Public Works, Treasury Board, and affected branches, districts and regions. The projects included a refrigerated seedling storage building at Midhurst; a new aircraft hangar building at Sault Ste. Marie; facilities for loading chemical fire retardants in aircraft at various locations; flight operations accommodation at Toronto International Airport; extensive renovations to the Pembroke district office; regional office accommodations at Richmond Hill and at Thunder Bay; and completion of an office and shipping shed at the Thunder Bay nursery.

Projects were funded for aviation gas and turbo fuel installations; a cold storage building, a prefab office and a warehouse extension; a trailer complex and camps, including junior ranger camps; automatic fish feeders and rearing ponds; floating docks; hose drying facilities; sewage facilities; fencing; and renovations, rewiring and painting.

IMPROVEMENTS TO FLOW CHANNELS

Improvements to flow channels, by clearing debris and floating bogs, and the dredging, widening and deepening of flow channels was carried out to increase efficiency in discharging water from Department-owned dams, to improve flow between controlled waters, or to decrease downstream flooding resulting from the Department's operation of a dam.

This year, improvements were undertaken at Pike Lake, South Nation River, Skeleton River, Bernard Creek and Snake River.

INSPECTION

Of the 265 Department owned and operated dams, approximately 15 per cent were inspected. Reports were

prepared and recommendations made to either repair or proceed to construction at some future date in each instance.

WATER MANAGEMENT ENGINEERING

Projects undertaken include pre-engineering, design, construction and maintenance of dams, docks and navigation locks and other hydraulic structures or facilities as well as improvements to flow channels and dredging.

PRE-ENGINEERING SURVEY AND DESIGN

Projects included dams; Nonquon Boundary Marsh and Gananoque wildlife management areas; Pine River Provincial fishing area; proposals for fishways at Thornbury and at Corbett's dam on the Gananaska River at Port Hope; dredging of access channels at Weller's Bay; the navigation lock at Huntsville; a new sub-station for the Dorion Fish Hatchery; and a hangar building for Department aircraft at Sault Ste Marie airport.

Investigations were also carried on for such projects as fish hatchery facilities; docks; drainage projects; aircraft landing strip; and sewage lagoons and shore erosion. The collection of hydrologic data was continued at various locations, and a number of stream flow measurement stations were constructed under the winter works program for skilled unemployed.

CONSTRUCTION

Construction staff completed the construction or reconstruction of water control structures at:

Pevensey Lake	WhiteWater Lake	Aylmer
Tiny Marsh	Wye Marsh	Mosque Lake
Farran Lake	Talon Lake	Loncoll Lake
MacKenzie Lake	Grand Lake	Frank Lake.

Other projects completed include improvements at Wearton, Sandfield, Deer Lake, Pembroke, Dalsam Creek, Dorion and Hill Lake fish hatcheries, and also at the South Bayworth and Glenora fisheries research stations; Rondeau Provincial Park dock and docks at Sioux Lookout, Achray and Geraldtons; scour pads at Denny's dam; and construction of a rollerway for navigation on the Black Sturgeon River; and Little Current boat house. Also, a major dredging project was carried out on the Pine River for channel improvement.

MAINTENANCE

Maintenance of hydraulic structures and docks were scheduled on the basis of condition determined from inspection and reports submitted from districts. In addition to reconditioning of the main water supply, pumps at Normandale fish hatchery, routine maintenance was carried out on the locks and the swing bridge at Port Carling, along with other miscellaneous projects. Maintenance of dams was carried out at the following locations:

Three Narrows Lake	Dennys Dam	West Harry's Lake	Booth Lake	Skeleton Lake
White River	Magnetawan Dam	Dwyers Marsh	Shirley Lake	North Milne Lake
Oxford Mills	Severn Falls	Manitou Lake	McCraney Lake	Martin River
Sand Lake	Basswood Lake	Evangeline Lake	Nepewassi Lake	Turtle Lake
Lyndhurst Dam	Omemee Dam	Tube Lake	Hay Lake	Lake Nosbonsing
Delta Dam	Paudash Lake	Panache Lake	Blind River	Tilden Lake
Baysville Dam	Bottle Creek	Frood Lake	Port Sydney	Bean Lake
Cordova Lake	Skootamatta Lake	Tyson Lake	Gowganda	Larder Lake
Salerno Lake	Orono Dam	Cache Lake	Duncan Lake	Knoefli Dam
Galeairy Lake	Summitt Lake	Opeongo Lake	Ahmic Lake	Lake Traverse
Baptiste Lake	Kinmount Dam	Lake of Two Rivers	Huntsville Dam	McIntosh Mills
Birch Lake	Weslemkoon Dam	Ragged Lake	Chapleau Dam	Midhurst

SIGN PROGRAM

Type, quality, colour, symbols, production and erection specifications have been standardized to achieve public acceptance and to assist the Department in communicating with the public while on or travelling through Crown lands or lands administered by the Department. A total of 20,065 signs of various types was produced by the sign shop at Huntsville.

ENGINEERING CONSULTATIONS

The Section provides engineering consultation for design, construction or reconstruction of Departmental facilities. Among the projects in which this Section was involved this year were erosion control studies; environmental problems, flood control problems, and fire protection systems for several tree nurseries. A project of particular interest was an investigation of water supply potential for the Chatsworth fish hatchery complex in which consultants were used.

This Section also continued to provide an extension service to the public under which shore erosion problems are examined and recommendations are made for alleviation.

WATER RESOURCES ENGINEERING

Responsibility for the management of water resources is undertaken through administration of The Lakes and Rivers Improvement Act. There was a total of 15 approvals of sites and plans for dam construction, under the Act, and in addition there were 13 investigations made of water regulation problems resulting from dam construction. An extensive survey and investigation was carried out with respect to water levels on Lake Nipissing.

ACCESS ROADS

A total of 3,280 miles of forest access and logging access roads were maintained and improved during the year. Many additional miles of abandoned logging roads were also made passable for moose management and hunting purposes.

Under Part II of The Public Lands Act, 39 roads, comprising 594 miles, are now designated as public forest roads for the purpose of exercizing traffic control by district staff.

The addition of one private forest road agreement between its owner and the Ministry has resulted in a total of nine agreements for a total of 267 miles.

Approximately 16 miles of road were constructed or improved under the summer cottage roads program to provide access to cottage lots in approved Crown subdivisions.

In addition, this Section was involved in the administration and construction of some 49 miles of road for six projects in the interests of the Northern Ontario Resources Transportation Committee, the Hydro-electric Power Commission of Ontario, and others.

RESEARCH BRANCH

Research Branch activities are reported under the headings of the three research sections – Fisheries, Forestry and Wildlife. The professional and technical support provided by an administration group is reported under Technical Services.

FISHERIES SECTION

In general, this program reflects management needs as expressed by Sports Fisheries Branch and Commercial Fish and Fur Branch. The Section contributed considerably to a symposium on the Salmonid Communities in Oligotrophic Lakes during which an international group of fisheries scientists convened at Geneva Park, July 12-24, in an attempt to identify and describe the effects of the three major stresses – eutrophication, exploitation, and introductions – on fish communities.

LAKE ONTARIO UNIT

Much of the Unit's effort went into planning for a co-ordinated biology and chemistry research program as part of the International Field Year for the Great Lakes. This is a massive study directed towards water movement, heat budget and lake meteorology in Lake Ontario in 1972. Because it is anticipated that there will be extensive reduction in the amount of phosphorous in the Bay of Quinte after 1974, as many physical, chemical and biological features as possible are being monitored to measure biological response.

LAKE ERIE UNIT

Monitoring of fish stocks in Lake Erie was continued, using the techniques of Index Fishing and net-run sampling. Additional stations were used in Index Fishing in an attempt to improve the technique. Studies of walleye ecology in Lake St. Clair and western Lake Erie were continued, and a supporting program of limnological research was intensified. Accumulated data on yellow perch, walleye and blue pickerel are being summarized. Environmental studies to establish baseline limnological information, against which progressive changes may be measured, were intensified.

LAKE HURON UNIT

The program consists of three major areas of activity: species oriented projects, system investigations, and methodological research. Species programs presently centre on life history descriptions of whitefish, Kokanee salmon and splake. System investigations include studies of inter-specific relationships, environmental influences on year-class production, and the effects of exploitation.

Three experimental fisheries (pond, trap, and gill nets) are operated in South Bay to provide a base for detection of long-term trends in relative abundance of certain species and to supplement individual species programs. Methodological research deals with the development of fry traps, tagging techniques, whitefish pond culture, and studies of fishing characteristics of gill nets.

LAKE SUPERIOR UNIT

Studies of the sea lamprey-lake trout problem continues. Emphasis is being placed on analysis of existing data. Studies of the environmental physiology of rainbow trout were broadened to include investigation of the effects of light and temperature on the viability of eggs and fry. An extensive reconnaissance of tributary rivers on the northwest shore, to monitor pink salmon spawning runs, was initiated.

HARKNESS LABORATORY UNIT

The major responsibility has been to provide facilities, equipment and services to (a) other research units within the branch and (b) co-operating research agencies and individuals whose projects are pertinent to resource management.

LAKE TROUT UNIT

Work is continuing on the preparation of a lake trout monograph which will assemble in one volume all the information on this species, and on a detailed distribution map of the species in Ontario.

BROOK TROUT UNIT

This program consists of studies on two natural lake populations, and an assessment of the survival of hatchery reared fish in 18 lakes which lack natural brook trout reproduction.

SMALLMOUTH BASS UNIT

Studies of spawning and first-year growth to determine factors affecting year-class success continue in Lake Opeongo and Greenleaf lakes. Much of the spawning behaviour was documented on 16 mm movie film. The Sublimnos program continued under the aegis of the unit with monitoring populations of organisms and water chemistry. The Unit leader is on the contingency force concerned with the effects of potential oil spill in the Great Lakes and is involved in examination of problems associated with nuclear powered, electric generating stations.

WALLEYE UNIT

A compendium on the species, covering all available information pertaining to the various facets of its life history, taxonomy, distribution and propagation, is in preparation and will be published in the United Nations Food and Agricultural Organization in their Fisheries Synopsis Series.

LIMNOLOGY UNIT

The pond study program was expanded to include investigations of the part played by rooted aquatic plants as cover and as a substrate for food organisms.

SELECTIVE BREEDING UNIT

The broad objective of the program is to explore the potential of selective breeding, hybridization and genetic manipulation as a means of improving the quality of fish stocks or of modifying species characteristics to accom-

modate environmental change. A specific objective has been to produce a stable reproductive strain of the brook trout x lake trout hybrid which will mature at age II or III and have the ability of the lake trout parent to inhabit deep water.

PARASITOLOGY UNIT

A general survey of fish parasites has been completed in Lakes Erie, Huron and Ontario and in Algonquin Park lakes. A comparable survey of Lake Superior fish parasites will require further work. These studies have defined a number of specific parasite problems which are of considerable concern to fish management and which may require special research and/or control action.

PRODUCTIVITY UNIT

After ten years of application, a re-evaluation of the morphoedaphic index is underway. This index was devised as a convenient method of estimating fish yield from a broad range of lakes. The evaluation of the index, its inherent significance, criteria for use and new information pertaining to its validity was presented at a seminar at the University of Toronto in January, 1972.

TECHNICAL STUDIES UNIT

Published literature concerning a number of environmental contaminants, including mercury, PcB's, heat, oil, D.D.T. and copper, was assembled and assimilated.

CO-OPERATIVE RESEARCH

Co-operative research projects were conducted in conjunction with the following Universities: Toronto, Guelph, York, Montreal and Waterloo, and with Royal Military College, Atomic Energy of Canada, Freshwater Institute FRB and UN, FAO.

FORESTRY SECTION

Efforts are made to anticipate and work towards solution of the major forestry problems of the Timber Management and Environmental Protection Branches. Priorities and preparation of long-term plans have been determined co-operatively. Programs of the Section and of the Great Lakes Forest Research Centre were reviewed by the Canada-Ontario Joint Forestry Research Committee.

SITE UNIT

Research continues to deal with relationships between environmental factors and productivity within ecosystems. Older programs are being finalized with the publication of landtype maps and a report on site classification.

FOREST ECOLOGY UNIT

Problem areas currently under consideration deal with optimization of the growth and development of established yellow birch regeneration, and with characterization of sugar maple defect, especially with regard to factors which regulate defect syndrome development. Preliminary studies of defect development of hybrid poplar were initiated.

ENVIRONMENTAL PHYSIOLOGY UNIT

The main area of concentration is the determination of the varying degrees of frost hardiness and dormancy of our native coniferous species throughout the year, and the development of methods to determine these conditions.

TREE BREEDING UNIT

Work concentrated on two major projects: poplar breeding and spruce breeding. New selections of hybrid poplars were made, and propagation initiated. Larger scale propagation of previously selected hybrid poplar and native poplar clones continued. Progress was made on the co-operative poplar pulpwood production project, and a new co-operative project for aspen veneer production was initiated. The spruce program to produce genetically superior trees through breeding, hybridization, selection and vegetative propagation continues, and active work has started on seed orchards.

SEED UNIT

Seed characteristics, seed source and seed production are the three main fields being examined by the Unit. The aims are to determine seed factors which contribute to better survival, rapid establishment of seedlings, and subsequent growth and yield, and to determine the best management systems for seed production areas.

TREE NUTRITION UNIT

Growth changes and foliar nutrient levels were recorded in a number of experiments with red pine and sugar maple. Foliar nutrient levels were measured in aspen, hybrid cottonwood and white spruce – the latter in relation to the possibility of increasing seed production through fertilization.

FORESTRY ECONOMICS UNIT

This program is concerned primarily with the extension of services internally to other units, and externally to industry and other agencies, both federal and provincial. It aims at assembling, analysing and developing economic information which may be combined with biological findings in subsequent practical implementation.

MENSURATION UNIT

Data were collated from field experiments for the preparation of growth and yield tables for poplar, red pine, white spruce and southern hardwoods.

FIRE CONTROL UNIT

A program was initiated to evaluate forest fire suppressants and retardants and methods of their application. Methods of assessment and test procedures were developed for various wetting and viscous agents used for forest fire control.

MIDHURST RESEARCH UNIT

This Unit is now well established at Midhurst Forest Nursery with an outplanting area in Vespra Township. Plantings were established at Vespra, Larose Forest and at locations in Parry Sound and Pembroke districts.

SOUTHWESTERN FOREST UNIT

The Unit is developing methods of establishing the clones and progeny of high quality, fast growing, hardwood phenotypes of several selected tree species in plantations on a variety of lowland and upland sites. Emphasis is being placed on the selection of multi-purpose species which will not only satisfy the wood requirements, but also serve a wide range of environmental functions, such as water and soil conservation, protection of native plant ecosystems, establishment of favourable wildlife habitats, and improving the aesthetics of impoverished forest sites.

SOUTH-CENTRAL FOREST UNIT

Work was continued collecting growth data from hard maple and other associated species in order to predict better the response of trees in a variety of stand conditions to different intensities of cuttings.

CENTRAL FOREST UNIT

This Unit is conducting field and laboratory studies of nutrition and growth, and the productivity ecology of spruce, as well as species and racial variation in the spruce genus. It also includes some limited studies of tree nutrition in relation to forest disturbance.

NORTHERN FOREST UNIT

The role of this Unit is to carry out investigative work and experiments that will lead to the effective silvicultural management of the tree species and forests of northern Ontario. Programs are being conducted on poplar and spruce-fir forest types.

ENVIRONMENTAL STUDIES

This Unit was established to plan and co-ordinate studies of the carrying capacity of a site to attract and sustain outdoor activities, and to develop a methodology for determining the optimum uses of land and water resources to satisfy public demand without deterioration of the quality of the environment.

WILDLIFE SECTION

The Section supervisor assumed responsibility for two projects concerning ecological effects of stream flow manipulations in the Hudson and James Bays drainage basins.

BIG GAME UNIT

A study was initiated on Long Point Peninsula in Lake Erie to find the social type to which the white-tailed deer belongs and to determine if it can adapt its social relationships to different environmental structures. Other white-tailed deer studies, involving snow depth, population ecology and winter distribution, were continued as well as similar moose programs.

PREDATOR UNIT

The black bear was the main species under investigation in the field. Work on wolves was confined to the laboratory and included studies on taxonomy, aging techniques and analyses of reproductive tracts. Aerial surveys, to determine the number and distribution of polar bears along the Ontario coast of Hudson Bay, were continued.

UPLAND GAME AND WATERFOWL UNIT

The program of banding blue/snow geese continued in the Cape Henrietta Maria area. Aerial surveys to measure population numbers and colour ratios in the nesting colony were conducted twice. Studies continue on the effects of environmental pollutants on thickness of egg shells and pesticide residues in four species of fish-eating birds. Three projects under Con-Joint Agreement with the University of Guelph continued.

WILDLIFE DISEASES AND PARASITE UNIT

The objective of this Unit is to identify the diseases and parasites present in wildlife in Ontario; to determine their geographic distribution, frequency and incidence as related to species of wildlife; and where possible to develop methods to alleviate their adverse effects on human and wildlife populations.

FURBEARER UNIT

Most field research was temporarily in abeyance, but data were maintained on the status of various furbearer populations, and library research continued.

WILDLIFE RESEARCH STATION

This establishment is maintained to provide working facilities for department staff and university personnel involved in research projects of interest to resources research and management. Personnel from the following universities were involved in co-operative research at the station: Toronto, McMaster, Waterloo, Guelph, York, Queen's and Carleton.

TECHNICAL SERVICES

The acquisition of a teletype terminal has permitted access to a PDP10 computer on a timesharing basis. Using this, a budget control system was designed and put into operation. Other procedures developed involve FR1 data, Morowski's Cull Study, Plonski's Yield Tables, and calculations and allocations of allowable cuts.

ELECTRONICS UNIT

Most of the work involved design, development and field testing of animal telemetry transmitting and receiving equipment for moose, deer, bear and fox.

MECHANICAL DEVELOPMENT UNIT

A highlight of the year was the display, which created much interest, at the Forest Industries Equipment Exhibition in Ottawa of several pieces of equipment developed by the Unit.

PHOTOGRAPHY UNIT

All photographic documentation in the laboratory and in the field required by Research Branch personnel is provided.

DRAUGHTING UNIT

The Unit provides inking or engraving of maps, charts and figures for photographic reproduction in departmental reports and scientific journals.

LIBRARY

The library provides province-wide service to departmental personnel, and maintains information liaison relations, as well as mutual lending, borrowing and exchange agreements with other libraries, governments and agencies.

FINANCE AND ADMINISTRATION DIVISION

LEGAL SERVICES BRANCH

LEGISLATION

At that part of the Session of the Legislature that commenced on the 13th day of December, 1971, and prorogued on the 17th day of December, 1971, no statutes administered by the Department were enacted or amended. At the part of the Session of the Legislature that commenced on the 29th day of February, 1972, no statutes administered by the Department were enacted or amended as of March 31, 1972.

On April 7, 1972, a number of bills were passed by the Legislature affecting government reorganization. The Government Reorganization Act, 1972, contains the basic changes throughout the government service necessary for the implementation of the recommendations of the Committee on Government Productivity as amended.

The Ministry of Natural Resources Act, 1972, established, as of the 1st day of April, 1972, the new Ministry of Natural Resources, which includes the former Department of Lands and Forests and Department of Mines and Northern Affairs and repealed the provisions of a number of acts on which the departments previously depended for administrative authority.

The Historical Parks Act, 1972, establishes a legislative basis for Historical Parks. Legislation for Historical Parks was formerly contained in The Department of Tourism and Information Act. The new act places responsibility for the establishment and administration of Historical Parks under the new Ministry of Natural Resources.

REGULATIONS

Forty-one regulations made under the authority of Acts administered by the Department of Lands and Forests were made and filed during the fiscal year from April 1st, 1971, to March 31st, 1972

THE CROWN TIMBER ACT

O. Reg. 377/71—Amends Reg. 69 of R.R. O 1960	General – Crown Dues
O. Reg. 161/72—Amends Reg. 159 of R.R.O. 1970	Stump Diameters

THE FOREST FIRES PREVENTION ACT

O. Reg. 173/71—New	Restircted Fire Zone—White River
O. Reg. 242/71—New	Restricted Fire Zone—Cochrane, Kapuskasing, Swastika
O. Reg. 245/71—New	Restricted Fire Zone—Fort Frances, Geraldton, Kenora, Thunder Bay, White River
O. Reg. 250/71—Revokes 245/61	Restricted Fire Zone—Fort Frances, Geraldton, Kenora, Thunder Bay, White River
O. Reg. 261/71—New	Restricted Fire Zone—Cochrane, Kapuskasing, Swastika
O. Reg. 346/71—New	Restricted Fire Zone—Fort Frances, Geraldton, Kenora, Sioux Lookout, Thunder Bay, White River
O. Reg. 352/71—New	Restricted Fire Zone—extending restrictions on Fort Frances, Geraldton, Kenora, Sioux Lookout, Thunder Bay, White River
O. Reg. 358/71—Amends O. R. 352/71	Restricted Fire Zone—Strikes out Geraldton and White River
O. Reg. 360/71—Revokes O. R. 352/71 as amended by O. R. 358/71	Restricted Fire Zone

THE GAME & FISH ACT

O. Reg. 181/71—New	Sale of Bass & Trout & Fishing Preserves
O. Reg. 222/71—Revokes O.R. 244/70, 294/70	Open Seasons—Game Birds
O. Reg. 260/71—Amends O.R. 343/64	Records and returns of licensed fur dealers re purchase and sale of fur pelts
O. Reg. 295/71—Revokes O.R. 311/70	Open Seasons—Rabbit and Squirrel
O. Reg. 325/71—Amends O.R. 49/71	Open Seasons—Deer, Moose and Black Bear

O. Reg. 348/71—Amends O.R. 49/71 ..... Additional Deer Seasons in Southern Ontario, Moose and Bows and Arrows
O. Reg. 418/71—Amends O.R. 222/71 ..... Pheasant Hunting—Pelee Island—Open Seasons & Bag Limits
O. Reg. 426/71—New ..... Luther Marsh Hunting Area—Waterfowl & Small Game Hunting
O. Reg. 427/71—Amends O.R. 49/71 ..... Deer Seasons—Southwestern Ontario
O. Reg. 428/71—Amends O.R. 277/68 ..... Waterfowl Hunting in Presqu'ile, Holiday Beach & Wheatley Prov. Parks
O. Reg. 453/71—Amends O.R. 229/63 ..... Hunting & Angling Licences—Privileges re lost licences
O. Reg. 454/71—Amends O.R. 277/68 ..... Hunting on Designated Crown Land & in Prov. Parks
O. Reg. 459/71—Amends O.R. 13/65 ..... Fishing Huts
O. Reg. 488/71—Amends O.R. 49/71 ..... Open Seasons—Deer, Moose, Black Bear—Co. Grey & pts. Simcoe
O. Reg. 533/71—Amends Reg. 364 of R.R. O. 1970 ..... Fish Huts
O. Reg. 15/72—Revokes O.R. 459/71 ..... Fishing Licences
O. Reg. 41/72—Revokes O.R. 181/71 ..... Sale of Bass & Trout

THE LOGGER SAFETY ACT

O. Reg. 289/71—Amends O.R. 317/64 ..... General

THE PLANNING ACT

O. Reg. 147/72—New ..... Restricted Areas—Dist. of Algoma

THE PROVINCIAL PARKS ACT

O. Reg. 68/72—Amends Reg. 695 of R.R.O. 1970 ..... Adds Sched. 102—Fathom Five Prov. Park
O. Reg. 72/72—Amends Reg. 695 of R.R.O. 1970 ..... Designation of Parks

THE PUBLIC LANDS ACT

O. Reg. 246/71—Revokes Reg. 524 of R.R.O. 1960 and O.R.'s 370/61; 66/62; 214/73; 268/63 208/64; 87/69; 218/69; 447/69; 113/70; 517/70 ..... Sale and Lease of Public Lands
O. Reg. 293/71—New ..... Restricted Areas—Dist. of Algoma
O. Reg. 294/71—New ..... Restricted Areas—Dists. of Kenora and Thunder Bay
O. Reg. 349/71—Amends O.R. 246/71 ..... Sale and Lease of Public Lands
O. Reg. 437/71 ..... Restricted Areas—Kenora Dist.

THE WILDERNESS AREAS ACT

O. Reg. 204/71—New ..... Establishing Michipicoten Wilderness Area
O. Reg. 509/71—Revokes Sched. 4 to Reg. 828 of R.R.O. 1970 ..... Pukaskwa Wilderness Area

THE WOODLAND IMPROVEMENT ACT

O. Reg. 378/71—Amends O.R. 244/66 ..... General—Establishes Mattawishkwia Management Area
O. Reg. 455/71—Amends O.R. 244/66 ..... Lakehead Management Area

ORDERS IN COUNCIL

Orders in council recommended by the Minister of Lands and Forests in the Year 1971-2

THE FINANCIAL ADMINISTRATION ACT

3436/71

THE GAME AND FISH ACT

1270/71	1722/71	2420/71	2893/71	2899/71	3137/71	122/72
1531/71	2140/71	2823/71	2898/71	3075/71	3271/71	323/72

THE LOGGERS SAFETY ACT

2021/71

THE CROWN TIMBER ACT

969/71 1276/71 1659/71 2304/71 3135/71 3567/71 314/72 874/72
970/71 1283/71 1718/71 2305/71 3136/71 3612/71 315/72 878/72
1013/71 1328/71 1719/71 2306/71 3138/71 3625/71 316/72 914/72
1032/71 1331/71 1720/71 2307/71 3139/71 3710/71 317/72 915/72
1041/71 1332/71 1721/71 2308/71 3143/71 3755/71 319/72 916/72
1045/71 1333/71 1743/71 2309/71 3145/71 3767/71 320/72 917/72
1047/71 1337/71 1755/71 2412/71 3172/71 3830/71 321/72 923/72
1064/71 1352/71 1766/71 2451/71 3286/71 3837/71 322/72 945/72
1085/71 1356/71 1821/71 2453/71 3287/71 3917/71 418/72 946/72
1092/71 1365/71 1822/71 2502/71 3288/71 3920/71 529/72 947/72
1096/71 1436/71 1838/71 2522/71 3289/71 3923/71 530/72 950/72
1097/71 1493/71 1915/71 2530/71 3290/71 37/72 531/72 951/72
1101/71 1494/71 1919/71 2535/71 3291/71 38/72 533/72 952/72
1102/71 1495/71 1920/71 2536/71 3292/71 39/72 705/72 953/72
1138/71 1505/71 1921/71 2541/71 3293/71 40/72 717/72
1144/71 1506/71 1922/71 2622/71 3294/71 49/72 747/72
1165/71 1507/71 1923/71 2623/71 3299/71 94/72 748/72
1166/71 1508/71 1924/71 2629/71 3300/71 95/72 749/72
1175/71 1509/71 1925/71 2632/71 3301/71 96/72 759/72
1196/71 1532/71 1933/71 2643/71 3367/71 97/72 760/72
1235/71 1533/71 1935/71 2705/71 3368/71 105/72 767/72
1236/71 1534/71 2047/71 2795/71 3373/71 106/72 857/72
1237/71 1558/71 2048/71 2800/71 3385/71 107/72 859/72
1244/71 1568/71 2054/71 2836/71 3396/71 108/72 860/72
1245/71 1569/71 2055/71 2860/71 3397/71 145/72 861/72
1246/71 1618/71 2136/71 2861/71 3415/71 222/72 862/72
1257/71 1633/71 2137/71 2886/71 3420/71 223/72 868/72
1265/71 1658/71 2303/71 3115/71 3425/71 224/72 873/72
3120/71

MISCELLANEOUS

1420/71 2062/71 2722/71 3295/71 3760/71 415/72
1432/71 2467/71 3073/71 3388/71 272/72
3754/71

THE MUNICIPAL ACT

1253/71 3371/71 325/72 867/72

THE EXECUTIVE COUNCIL ACT

3372/71 3626/71 1081/72

THE NIAGARA PARKS ACT

1431/71

THE ONTARIO GEOGRAPHIC NAMES BOARD ACT

2011/71

THE PITS AND QUARRIES CONTROL ACT, 1971

3342/71

THE PROVINCIAL PARKS ACT

281/72 414/72 532/72

THE PUBLIC LANDS ACT

1081/71 1606/71 1958/71 2501/71 3313/71 3692/71 238/72 942/72
1139/71 1625/71 1962/71 2792/71 3379/71 3695/71 318/72 948/72
1219/71 1626/71 1963/71 2805/71 3389/71 3708/71 337/72
1251/71 1746/71 1972/71 2818/71 3419/71 3759/71 698/72
1347/71 1753/71 2115/71 3140/71 3427/71 3761/71 791/72
1529/71 1777/71 2291/71 3144/71 3490/71 113/72 880/72
1542/71 1863/71 2421/71 3302/71 3592/71 116/72 881/72
1544/71 1937/71 2448/71 3312/71 3678/71 147/72 884/72

THE WILDERNESS AREAS ACT

1478/71 3670/71 1348/71

THE WOODLANDS IMPROVEMENTS ACT

2641/71 3141/71

FEDERAL-PROVINCIAL CO-OPERATIVE AGREEMENTS

Road across Gull Bay Indian Reserve No. 55

By an agreement dated the 13th day of April, 1971, between Her Majesty the Queen in right of Canada as represented by the Minister of Indian Affairs and Northern Development, and Her Majesty the Queen in right of Ontario as represented by the Minister of Lands and Forests, Ontario agreed to pay to Canada the sum of $15,000.00 by way of compensation for the use of lands in the Gull Bay Indian Reserve No. 55 in connection with the Armstrong-Hurket Road until the 31st day of December, 1971. Canada released Ontario from any claims which Canada may have had against Ontario by reason of the use of the lands for road purposes up to December 31, 1971.

Agreement to Maintain Commercial Fish Operations on certain lakes during 1971

By an agreement dated the 26th day of July, 1971, between the Government of Canada, as represented by the Minister of Fisheries, and the Government of the Province of Ontario, as represented by the Minister of Lands and Forests, Canada and Ontario agreed to establish a cost sharing program to maintain commercial risk operations on certain lakes in Ontario. The program, administered by Canada, provided for cash payments to fishermen or processors, including the Freshwater Fish Marketing Corporation, for fish rejected by the Inspection Branch of the Department of the Environment because of levels of mercury contamination above the level of 0.5 ppm. The total amount of payment made under the program, not to exceed $100,000., was to be shared equally by Canada and Ontario.

Agreement for the Re-establishment of the Winisk Goose Camp

By an agreement dated the 12th day of January, 1972, between Her Majesty the Queen in right of Ontario, as represented by the Minister of Lands and Forests, and Her Majesty the Queen in right of Canada, as represented by the Minister of Indian Affairs and Northern Development, Ontario and Canada agreed, by amendment of an existing agreement between the parties dated the 24th day of January, 1962, establishing a program of mutual assistance in the development and management of annual renewable resources in Ontario, to supplement the program by providing funds for the re-establishment of a goose camp at Winisk which was destroyed by flood.

STATEMENT OF PATENTS, 1971-2

PATENTS		
Agriculture	1	
City—Town	50	
Free Grant	—	
Miscellaneous	126	
Summer Resort	1,457	1,634
LEASES		
Crown and Water Lot	38	
Summer Resort	284	
Rondeau	44	
Algonquin	41	
Easement	1	
Water Power Agreement	2	410
LICENCES OF OCCUPATION	132	132

The statement for the year ending March 31, 1972, reflects an increase of 15 per cent in the number of documents issued over the year.

SALE AND LEASE OF PUBLIC LAND

By O. Reg. 246/71 made under The Public Lands Act, the sale of public land for private summer resort use was prohibited as of the 3rd day of June, 1971, and a new leasing scheme brought into effect. The new leases are for a term of 30 years at an annual rental fixed by the regulation and contain provision for renewal at the expiration of the term. The rental is subject to review at prescribed intervals during the term of the lease.

Letters patent may still be issued with respect to summer resort locations sold for commercial use.

SERVICES BRANCH

OFFICE MANAGEMENT

The Section provides a variety of services including the management of Crown land records (188,300 active files), the issue of revolvers and permits to carry firearms, and policy and procedure directive production.

During the past fiscal year, the Section's reproductive facilities processed an average of 140,000 photo copies and 20,000 mimeograph copies per month.

A total of 2,300 transactions (aquisitions, transfers and write-offs) were recorded in the updating of the equipment inventory; and 15 licences were obtained for boats.

A total of 2,650 uniform requisitions were processed to supply approximately 800 regular staff and 1,100 summer casual staff (mainly in parks).

PURCHASING

Because of the continued expansion of Department activities and the need for more equipment and services, procurement and purchasing increased in volume during the past fiscal year. Over 14,000 requisitions were received, an increase of about 3,000 on the year.

Direct purchase orders numbered over 7,000; central stationery requisitions, 4,832; printing requisitions, 394; central duplicating requisitions, 760; and public works requisitions, 794.

Direction and oversight were maintained on leases and rentals of property for the Department throughout the Province in conjunction with the Department of Public Works.

CENTRAL SUPPLY WAREHOUSE

During the fiscal year, the Section received a total of 759 tons of supplies and equipment and shipped a total of 283 tons, excluding mail. Shipments were made by express, freight, transport and mail, and by internal supply to Department offices.

Thirty types of licences were distributed to District Offices and approximately 3,600 licence issuers on 16,325 invoices. The 2,084,300 licences included hunting, angling, bait fish, roll net, dip net, frog, guide, trapping, trap-line, and dog. A total of 1,121,490 Provincial Park Permits were distributed.

CONSERVATION INFORMATION

News Service. A weekly newsletter of several pages carried Department news and regulations to all general news outlets and all outdoor writers in Ontario. The mailing list of 3,667 included special interest groups. The French translation had a weekly circulation of 181. News of more than normal urgency was supplied directly to important news outlets.

Editorial Service. Information or prepared statements were supplied on request to outside agencies. Editorial work was performed on publications and other releases emanating from other Branches. Display advertisements were prepared occasionally to enlist public support of Department programs.

Radio Service. Production was begun on *Ontario Outdoors,* an effective radio series that was distributed to 50 radio stations in the Province. The program featured technical and professional personnel in brief talks.

Television Service. Production was begun on motion picture film. The Section assisted with staff and equipment on 16mm colour film produced for live and cable television in the Thunder Bay and Sudbury areas.

Photo Service. The photograph library loaned 7,000 prints and 2,000 colour transparencies to writers and publishers. Section photographers took photographs on assignment and supplied prints from the darkroom.

Information Service. The Section returned 37,800 answers by mail to persons who had requested information. Requests were frequently answered by telephone.

NEW PUBLICATIONS

The following list of Department publications, released during the year, does not include scientific or technical items or leaflets distributed in parks.

The Beaver in Ontario
The Moose in Ontario
The Ruffed Grouse in Ontario
Ontario Snakes (revised) (50¢)
Ontario Mammals (50¢)
Leaflets on Nine Mammals
Wildlife Management Areas in Ontario, 1971
Data on Hunting Accidents in Ontario, 1971
Hunter Safety Instructors' Manual
Hunter's Handbook, Part I (revised) (50¢)
Hunter's Handbook, Part II (revised) (75¢)
Fish Farming
Stream Improvement
Mercury in Fish
Sibbalds of Eildon Hall (50¢)
Rural Lands and Landowners of Southern Ontario
Private Land Forestry Service
Common Pests of Evergreen Trees In Ontario
Directory of Primary Wood-Using Industries in Ontario, 1971
The Forest Resources of Ontario (revised) (75¢)
The Farm Windbreak (revised)
Growing Christmas Trees in Ontario (revised)
The Ontario Tree Seed Plant (revised)
St. Williams Forest Station (revised)
Midhurst Forest Station (revised)
Summary of the Ontario Hunting Regulations, 1971
Provisional Summary of Big Game Hunting Seasons in Ontario, 1972
Summary of Regulations Which Apply to Trapping and Fur Dealing, 1971-2
Summary of the Ontario Fishing Regulations, 1972
The Game and Fish Act and The Endangered Species Act
The Loggers' Safety Act
The Forest Fires Prevention Act
Publications, 1972
The Annual Report of the Minister of Lands and Forests, 1971
Statistics, 1972
Your Forests (periodical, 1971-2)
Ontario Fish and Wildlife Review (periodical, 1971-2)

CONSERVATION EDUCATION

VISUAL EDUCATION

During the past year, the Section loaned approximately 1,200 films to field offices. Additional films and projection equipment were loaned to Provincial Parks.

During the year, the following films were added to head office and field office film libraries.

Arctic Borderlands in Winter
Be Woods Wise
Creatures of the Forest
Edible Plants in Winter
Falls Can Cripple
Flames in the Forest
Go North
Lost Hunter
Play Safe With Snowmobiles
Rise and Fall of the Great Lakes
Seeds to Trees
Shelter Construction in Winter
Shore and Water Birds
Snakes of Ontario
Sounds of Nature
This Vibrant Land
Wings of the Wild

Illustrated Lectures were given on many aspects of the Ministry's work to fish and game associations, service clubs, church groups, youth organizations, and schools.

EXHIBITS

The Section supplied display material to District Offices for use in approximately 70 exhibits and was responsible for the major exhibits listed below.

Canadian National Exhibition, Toronto: educational display of 20 varieties of game fish; display of 25 species of mammals and birds with information on habits and habitats; display in miniature of nursery practice from tree seed to shipping stock; display of wood products with map showing locations of wood industries and their effect on the economy; a 30-foot animated display with sound of forest fire devastation including fire causes; a display of leather work, bead work and wood carving by two members of the Iroquois Six Nations Reserve; information and publication desk; and the annual poster contest for school children.

Central Canada Exhibition, Ottawa: display of fish and wildlife; map of offices offering forestry assistance to landowners; and illuminated boat safety cartoons.

Lakehead Exhibition, Thunder Bay: displays similar to Central Canada Exhibition.

London Western Fair: an exhibit of education in conservation including fish, wildlife, forest management, forest protection, and hunting and boating safety.

International Plowing Match, Sebringville: display of wildlife and wildlife land management; display of nursery practice from tree seed to planting stock; illuminated snowmobile safety cartoons; and hunter safety display.

Royal Winter Fair, Toronto: display of nursery practice and forest growth on eroded land; display of wildlife land management; display of wildlife showing habits and habitats; and display of eight important tree species.

Canadian National Sportsmen's Show, Toronto: a display of education in conservation including Ontario fur fashions; fish and wildlife management; forestry, yesterday and today; Provincial Park locations; safe gun handling practices; snakes of Ontario; forest protection; Indian handicrafts; and children's conservation poster contest.

ACCIDENT CONTROL

EMPLOYEE SAFETY TRAINING

Driver Improvement Training and Testing improves the driving skills of many employees who drive vehicles for the Department, and it trains them in systematic vehicle maintenance. In the program's two years, 1,696 drivers have been trained and tested, and 576, who fell below the qualification level, have been given a defensive driving course.

Supervisor Training. During the year, 42 supervisors were given a course on safety instruction, and 202 foremen were given a course on job instruction which stressed safety in working practices.

Boating Safety. During the year, 89 employees were instructed on boating safety.

Gun Safety. Conservation officers were instructed on the safe handling of side arms and sporting weapons.

Fire Safety. When fire crews are being trained, a one-day course is given on safety in fire suppression practices.

Park Safety. Applicants for beach patrol are instructed and given a rigorous test. Parks and work camps are inspected for safety and sanitation.

First Aid courses are given on a regular basis. During the year, 1,788 employees took the course, and 41 were qualified as instructors. 307 employees were trained in the use of the resuscitator.

General. A total of 432 employees were instructed in the Lateiner method of accident control, and 107 were trained in the maintenance of fire extinguishers.

PUBLIC SAFETY TRAINING

Hunter Safety Training is developed and administered by the Section. An important duty is the examination, selection and periodic re-examination of instructors. During the year, 1,353 qualified, volunteer instructors gave the prescribed safety course to 10,996 persons who wished to become hunters.

Training in Parks. At the request of the Department, the Ontario Safety League gave a series of courses to Provincial Park visitors last summer on safe practices in canoeing, camping and outdoor living.

THE LOGGERS' SAFETY ACT

The administration of The Loggers' Safety Act, undertaken on November 29, 1964, was transferred to the Ministry of Labour as of April 1, 1972. During the final year, accident control officers made more than 2,000 inspections and generally assisted the smaller operators in safety matters. In 1971-2, logging operations were responsible for 11 deaths, the fourth annual decrease from a high of 19 in 1967-8.

WORKMEN'S COMPENSATION

Department costs for Workmen's Compensation in 1971-2 were $353.380.78, an increase on the year of $90,556.25 of which approximately one-third was due to the O.S.E.P. program. Compensable claims were 428 higher at 1,343.

No deaths occurred during the year. Six new pensions were established for permanent, partial disability.

The Injury Frequency Rate was 27.9, an increase of 9.4 on the year. Individual district rates ranged up to 54.3.

The Lands and Forests Safety Trophy was won by North Bay District with an injury frequency rate of 5.6, a pacesetting improvement on the year of 19.2.

PERSONNEL BRANCH

DISPOSITION OF PERSONNEL

Disposition of senior administration staff, March 31, 1972.

Deputy Minister: Walter Q. Macnee.

Director of Implementation for the new Ministry of Natural Resources: W. T. Foster.

Chairman of Ontario Committee, Man and Resources: R. Hummel.

Regional Directors: A. H. Peacock (acting), Southern; J. W. Lockwood, Northeastern; and L. Ringham, Northwestern.

Executive Directors: A. J. Herridge, Resource Products; Dr. S. Peters, Outdoor Recreation; R. R. MacBean, Finance and Administration; and J. W. Giles, Land Management.

Branch Directors:, M. J. Brubacher, Commercial Fish and Fur; D. P. Drysdale, Resource Economics; R. M. Dixon, Timber Management; J. Barron, Timber Sales; J. W. Keenan, Parks and Recreation Areas; J. D. Roseborough, Sport Fisheries; F. A. Walden, Wildlife; G. H. Ferguson, Legal Services; A. Goddard, Financial Management; J. M. Taylor, Personnel; G. A. Hamilton, Services; W. G. Cleaveley, Environmental Protection; L. Eckel, Lands and Waters; R. G. Code, Surveys and Engineering; and Dr. W. R. Henson, Research.

District Foresters: G. P. Elliot, Chapleau; W.H. Forman, Cochrane; R. A. Balkwill, Fort Frances; W. K. Fullerton, Geraldton; D. A. Fawcett, Kapuskasing; D. R. Johnston, Kemptville; J. R. Oatway, Kenora; W. B. Clarke, Lake Erie (Aylmer); J. M. Halpenny, Lake Huron (Hespeler); F. E. Sider, Lake Simcoe (Maple); A. E. Walroth, Lindsay; D. J. Vance, North Bay; J. S. Ball, Parry Sound; T. W. Hueston, Pembroke; R. J. Burgar, Sault Ste. Marie; F. L. Hall, Sioux Lookout; S. R. Hamilton, Sudbury; E. Markus, Swastika; L. M. Affleck, Thunder Bay; D. E. Gage, Tweed; and A. S. Holder, White River.

Director, Ontario Forest Technical School: V. B. Collins (acting).

OFFICE MANAGEMENT

Selected staff of the Section formed a team with members of the Systems and Procedures Section of Financial Management Branch to study Personnel Branch systems. Priority was given to a computerized attendance reporting system. The team worked to establish a high-calibre system which would, among other things, produce a yearly bonus payment report, a quarter century club advice, and a semi-yearly attendance record.

STAFF DEVELOPMENT

New emphasis was placed on management development during the year. Such courses as Personnel Management Administration and Supervisory Training were developed and provided "in house" for supervisors. An annual plan was prepared in the form of a brochure and distributed throughout the Department for use by staff in determining appropriate training and development actions. It proved to be a useful reference. Technical training was continued in certificate courses.

STAFFING

To obtain qualified professional and technical staff, the campus program was continued at local universities and at community colleges where graduate forestry technicians were available. Specialized positions were advertised in newspapers.

Junior Forest Rangers, 17-year-old school boys, increased in numbers again to a new high of 2,034, placed in 77 camps during July and August.

NEW STAFF HIRED, 1971-2

	Male	Female	Total
Head Office	52	45	97
Field	183	36	219
Total	235	81	316

TOTAL STAFF, March 31, 1972

	Regular	Probationary	Unclassified	Total
Head Office	839	123	200	1,162
Field	2,131	231	1,163	3,525
Total	2,970	354	1,363	4,687
March 31, 1971	2,819	408	1,506	4,733
March 31, 1970	2,762	310	877	3,949
March 31, 1969	2,486	485	904	3,875
March 31, 1968	2,304	490	966	3,760

Total complement of regular and probationary positions, March 31, 1972	3,440
Total, regular and probationary staff	3,324
Total, vacancies in complement	116

PROFESSIONAL STAFF, March 31, 1972

Biologists	93
Economists	6
Engineers	11
Foresters	273
Legal Officers	5
Miscellaneous	79
Total	467
Resource Technicians with Diplomas	1,129
Licensed Scalers	976

STAFF TURNOVER, 1971-2*

	Resigned	Dismissed	Retired	Deceased	Superannuated	Inter-Dept. Transfers	Misc.	Total
Head Office	39	3	2	3	15	26	9	97
Field	62	6	1	6	21	9	9	114
Total	101	9	3	9	36	35	18	211

* Staff turnover during the year was 6.35 per cent – the ratio of separations to the total of regular and probationary staff at March 31, 1972.

FINANCIAL MANAGEMENT BRANCH

FINANCIAL REPORT

For Year Ended March 31, 1972

Comparison of Revenue and Expenditure with those of the previous two years

(a) REVENUE (Branch)

	1970 $	1971 $	1972 $
Provincial Land Tax	2,033,837	1,932,379	2,013,687
Forest Protection	155,495	119,911	186,383
Timber	20,554,132	21,411,838	15,166,772
Lands	2,389,615	2,260,366	1,141,495
Fish and Wildlife	11,146,218	10,649,349	9,497,273
Parks	3,082,227	3,115,121	3,523,775
Other	157,161	175,600	181,952
Reimbursements of Expenditures	–	–	511,929
	39,518,685	39,664,564	32,223,266

(b) EXPENDITURE

	1970 $	1971 $	1972 $
General Expenditure	61,452,670	71,501,137	92,486,312
Disbursements	–	–	320,344
Special Warrant	–	–	36,807
	61,452,670	71,501,137	92,843,463

REVENUE

MAIN OFFICE			
Provincial Land Tax		$ 2,013,687	
Sale of Maps, Publications, etc.		181,952	$ 2,195,639
FOREST PROTECTION BRANCH			
Forest Protection Section			
Recovery of Fire Fighting Costs and Miscellaneous		$ 112,198	
Air Service–Flying Fees		74,185	186,383
TIMBER BRANCH			
Stumpage Charges	$12,591,499		
Management and Fire Protection Charges	1,930,665		
Agreement Forests	85,828		
Logging Roads–Recovery of Construction Costs (Fixed Assets)	245,626		
Miscellaneous	63,100	$14,916,718	
Reforestation Section			
Sale of Nursery Stock		196,726	
Government of Canada–Agriculture Rehabilitation and Development Project Costs (Prior Years Expenditure)		53,328	15,166,772
LANDS BRANCH			
Lands Section			
Land Sales (Fixed Assets)	$ 218,412		
Land Rentals, Leases and Licences of occupation	571,950		
Perquisites–Rentals	168,554		
Refunds on Land Purchase Deposits (Prior years expenditures)	83,305		
Miscellaneous	51,682	$ 1,093,903	
Parks Rentals, Leases and Licences of Occupation			
Algonquin	$ 10,369		
Rondeau	13,049		
Sundry Parks	316	23,734	
Survey Section			
Recovery of Survey Fees		2,550	
Government of Canada–Agriculture Rehabilitation and Development Project Costs (Prior Years Expenditures)		21,308	1,141,495
FISH AND WILDLIFE BRANCH			
Licences, Royalties and Sundry		$ 9,496,326	
Government of Canada–Industrial Development Agreement (Prior years expenditure)		947	9,497,273
		Carried Forward	$28,187,562

EXPENDITURE

DEPARTMENTAL ADMINISTRATION			
Minister's Salary–Statutory		$ 12,582	
Salaries and Wages	$ 4,701,381		
Employee Benefits	582,367		
Transportation and Communications	323,697		
Services	1,150,838		
Supplies and Equipment	1,116,558		
	$ 7,874,841		
Less–Expenditure Refunds– Board and Lodgings at Forestry Technical School	71,492	7,803,349	
Grants			
Canadian Council of Resource Ministers	$ 48,576		
Ontario Forestry Associations	12,500	61,076	$ 7,877,007
RESOURCE PROTECTION AND DEVELOPMENT PROGRAM			
Program Administration			
Salaries and Wages		$ 3,129,098	
Employee Benefits		257,668	
Transportations and Communications		484,184	
Services		132,327	
Supplies and Equipment		184,617	4,187,894
Forest Protection			
Salaries and Wages		$ 9,522,020	
Employee Benefits		575,041	
Transportation and Communication		501,822	
Services		565,236	
Supplies and Equipment		3,394,267	14,558,386
Extra Fire Fighting			
Salaries and Wages		$ 1,206,535	
Employee Benefits		11,097	
Transportation and Communication		47,394	
Services		659,922	
Supplies and Equipment		600,011	2,524,959
TIMBER			
Salaries and Wages	$13,159,757		
Employee Benefits	741,536		
Transportation and Communication	596,770		
Services	4,129,443		
Supplies and Equipment	2,308,361		
Acquisition/Construction of Physical Assets	27,372		
	$20,963,239		
Less–Interdepartmental Charges–Access Roads	488,182	$20,475,057	
Grants to Municipalities and Conservation Authorities		142,793	20,617,850
	Carried Forward		$49,766,096

REVENUE *(Continued)*

	Brought Forward		$28,187,562
PARKS BRANCH			
Park Concessions–Rentals		$ 179,480	
Permits (All Parks)			
Vehicle	$ 681,836		
Campsite	2,529,344	3,211,180	
Licences–Guide		7,275	
Ski-Tow Fees		2,193	
Miscellaneous		33,538	
Government of Canada–Agriculture Rehabilitation and Development Project Costs (Prior Year's Expenditure)		90,109	3,523,775
REIMBURSEMENTS OF EXPENDITURES			
Government of Canada			
Agriculture Rehabilitation and Development Agreement		$ 374,144	
Resources Development Agreement		130,000	
Fisheries Industrial Development Agreement		7,785	511,929
GENERAL REVENUE			$32,223,266

EXPENDITURE *(Continued)*

	Brought Forward		$49,766,096
LANDS			
Salaries and Wages	$ 3,379,637		
Employee Benefits	214,539		
Transportation and Communication	183,513		
Services	2,364,248		
Supplies and Equipment	607,118		
Acquisition/Construction of Physical Assets	5,468		
	$ 6,754,523		
Less–Expenditure Refunds Access Roads	69,021	$ 6,685,502	
Grant to Association of Ontario Land Surveyors		200	
Annuities and Bonuses to Indians		44,096	6,729,798
RESEARCH			
Salaries and Wages		$ 1,734,460	
Employee Benefits		120,511	
Transportation and Communications		97,116	
Services		81,792	
Supplies and Equipment		243,020	2,276,899
RECREATION PROGRAM			
Program Administration			
Salaries and Wages		$ 1,453,047	
Employee Benefits		118,401	
Transportation and Communications		230,168	
Services		191,125	
Supplies and Equipment		83,315	2,076,056
Fish and Wildlife			
Salaries and Wages	$ 6,064,176		
Employee Benefits	424,855		
Transportation and Communication	396,294		
Services	783,486		
Supplies and Equipment	1,145,028	$ 8,813,839	
Grants			
Jack Miner Migratory Bird Foundation, Inc.	$ 3,000		
Ontario Waterfowl Research Foundation	5,000		
Ontario Council of Commercial Fisheries	5,000	13,000	
Disbursements			
Loans under the Fisheries Loan Act		320,344	9,147,183
PARKS			
Salaries and Wages		$ 8,188,451	
Employee Benefits		378,225	
Transportation and Communications		331,472	
Services		1,978,030	
Supplies and Equipment		2,901,273	
Acquisition/Construction of Physical Assets		9,033,173	22,810,624
SPECIAL WARRANT			
Payments for Contaminated Fish			36,807
TOTAL NET EXPENDITURE			$92,843,463

TOTAL EXPENDITURE ALLOCATED

For Year Ended

Programs	Vote Total $	Activity Total $
DEPARTMENTAL ADMINISTRATION	7,877,007	
(Pro-rated by Operating Activities)		
Main Office		671,592
Financial Administrative Services		1,801,851
Legal Services		385,479
Operations Services		1,267,633
Personnel		633,486
Information and Education		513,536
Junior Rangers		1,553,343
Youth Corps (S.W.E.E.P.)		1,050,087
	7,877,007	7,877,007
RESOURCE PROTECTION AND DEVELOPMENT	50,895,786	
Program Administration (Pro-rated by Activities)		4,187,894
Forest Protection		14,558,386
Protection Services		
Communication Service		
Plant Operating & Repair		
Stock Control & Repair		
Air Service–Operating & Repair		
Maintenance, Locks, Docks & Dams		
Construction, Locks, Docks & Dams		
Extra Fire Fighting		2,524,959
Timber		20,617,850
Timber Service		
Grants Municipalities and Conservation Authorities		
Construction of Logging Roads		
Construction of Forest Access Roads		
Lands		6,729,798
Lands Service		
Lands Surveys		
Storage Dams–Control & Maintenance		
Maintenance–Forest Access Roads		
Annuities & Bonuses to Indians		
Construction of Summer Resort Roads		
Research		2,276,899
	50,895,786	50,895,786
RECREATION	33,713,519	
Program Administration (Pro-rated by activities)		2,076,056
Fish and Wildlife		8,826,839
Fish and Wildlife Services		
Grants		
Payments of Wolf Bounty		
Parks		22,810,624
Parks Service		
Acquisition & Development of Land		
	33,713,519	33,713,519
STATUTORY		
Loans Under the Fisheries Loan Act	320,344	320,344
SPECIAL WARRANT		
Payments for Contaminated Fish	36,807	36,807
TOTAL NET EXPENDITURE	92,843,463	92,843,463
Percentage of Total		

TO MAIN ACTIVITIES

Statement No. 2

March 31, 1972

Sub-Activity Total $	Forest Protection $	Timber $	Lands $	Fish & Wildlife $	Parks $
671,592	109,872	201,948	50,840	117,797	191,135
1,801,851	294,783	541,816	136,400	316,045	512,807
385,479	63,064	115,913	29,182	67,613	109,707
1,267,633	207,385	381,177	95,960	222,343	360,768
633,486	103,638	190,489	47,955	111,113	180,291
513,536	84,014	154,420	38,875	90,074	146,153
1,553,343	142,072	476,184	149,573	61,491	724,023
1,050,087	99,968	295,284	75,712	305,470	273,653
7,877,007	1,104,796	2,357,231	624,497	1,291,946	2,498,537
4,187,894	1,143,714	2,096,041	520,555	347,595	79,989
8,384,540	8,384,540				
487,496	93,307	160,727	38,853	85,361	109,248
1,225,543	234,569	404,062	97,676	214,592	274,644
921,686	176,411	303,880	73,458	161,387	206,550
2,240,116	1,077,062	275,629	115,931	644,264	127,230
283,336		3971	73,763	194,231	11,371
1,015,669		14,210	264,418	696,260	40,781
2,524,959	2,524,959				
19,280,408		19,280,408			
142,793		142,793			
245,626		245,626			
949,023	11,014	762,718	65,119	95,441	14,731
3,941,236			3,941,236		
987,263	19,745	59,236	710,829	197,453	
23,846			23,846		
1,575,275	169,814	938,359	169,880	213,523	83,699
44,096			44,096		
158,082			158,082		
2,276,899	66,427	786,275	32,346	1,372,251	19,600
50,895,786	13,901,562	25,473,935	6,330,088	4,222,358	967,843
2,076,056		4,775	5,813	635,896	1,429,572
8,755,047				8,755,047	
13,000				13,000	
58,792				58,792	
13,777,451					13,777,451
9,033,173		71,011	89,396	864,198	8,008,568
33,713,519		75,786	95,209	10,326,933	23,215,591
320,344				320,344	
36,807				36,807	
92,843,463	15,006,358	27,906,952	7,049,794	16,198,388	26,681,971
	16.16%	30.06%	7.59%	17.45%	28.74%

RESOURCE PRODUCTS DIVISION

Resource Products Division is divided into four branches and their subordinate sections with responsibilities as follows.

Commercial Fish and Fur Branch: Regulation and utilization of commercial fish and fur; production of adequate commercial supplies of fish and fur; legal and physical access to current supplies of commercial fish and fur for the industry; and the establishment and co-ordination of programs for the use of renewable, natural resources by Indians.

Resource Economics Branch: Economic analyses, marketing, production statistics, industrial development, and library services.

Timber Management Branch: Tree production, silvicultural operations, tree and seed improvement, equipment development, tree distribution, Agreement administration, assessment, and forestry extension service.

Timber Sales Branch: Inventory of forest resources, air photo library, map and photo service, Crown management plans, company management plans, sale of timber, and wood measurement.

COMMERICAL FISH AND FUR BRANCH

COMMERCIAL FISH SECTION

Ontario's commercial fishermen harvested 55,037,078 pounds of food-fish and bait-fish in 1971 and received $8,812,431 from their sale. It is estimated that the catch contributed about $18 million to the provincial economy. The food-fish catch of 42.8 million pounds was seven per cent below the 1970 catch. Market prices for fish products increased during 1971.

Nearly 90 per cent of all fish landed in Ontario are taken in the Great Lakes. The dominant species are yellow perch and smelt in Lake Erie, lake herring in Lake Superior, lake whitefish and chub in Lake Huron and Georgian Bay, and yellow perch and white perch in Lake Ontario. The northern inland fisheries continue to be the major source of yellow pickerel, lake whitefish, northern pike and sturgeon.

Over 183.7 million minnows were harvested and sold for $1.9 million during the year.

During 1971, 1,268 licences were issued for the harvest of food-fish and 3,449 for bait-fish.

The total capital investment in the commercial fishing industry was $12.4 million at the end of 1971.

The extent of mercury contamination was identified in an intensive sampling and analysis program in 1971. The results confirmed the need to close certain lakes and indicated that a partial restriction of fishing is necessary in a number of other lakes. It was found that fishing could be restored for certain species in areas previously closed.

INDUSTRIAL DEVELOPMENT

The objective of the Federal-Provincial cost – shared Industrial Development Program is to develop more efficient and economical fishing and processing techniques.

A Lake Erie trawler and crew were contracted to fish from December through March. Sufficient quantities of coarse fish were taken to demonstrate the feasibility of a trawl fishery which would harvest a combination of fish species at different times of the year. A similar trawling experiment was conducted from December through January in Lake Superior. It indicated that trawling for herring could be feasible if weather conditions were favourable.

Technical upgrading and gear development projects in the northern inland fishery were expanded this year. Different types of trap-nets were tested for their ability to harvest whitefish selectively in recreational waters. Trap-netting techniques were demonstrated.

A combined trap-net demonstration and product marketing survey was carried out in the Rainy Lake area. Burbot were taken in trap-nets under the ice, filletted, packaged as "Freshwater Maria", and distributed with a questionnaire to 300 grocery store customers. Most customers found the product appealing, and grocery outlets were interested in obtaining more.

Two projects completed in 1969 have resulted in substantial benefits to the industry. One was a plant to use fish-processing wastes and fish unsuitable for food; during 1971, it produced 1,100 tons of fish meal with a total revenue of $130,000.00. The second was the development of bulk-handling techniques which saved an estimated $87,400.00 in the handling of 12 million pounds of smelt during 1971.

SUPPORT FOR INDUSTRY

The program under The Fisheries Loans Act provided financial assistance to commercial fishermen where fishing was prohibited because of mercury pollution. Loans were made to 102 licensees during 1971.

A second program of financial support, administered by the Ontario Development Corporation and the Northern Ontario Development Corporation, assisted commercial fishermen to restructure or relocate their fisheries to harvest uncontaminated fish. During 1971, 58 loans totalling $354,000 were authorized.

Financial aid was also extended to commercial fishermen and processors whose fish had to be removed from the commercial market due to mercury contamination.

The Freshwater Fish Marketing Corporation, which in 1969 became the buying and selling agent for freshwater fish in northwestern Ontario, continued to provide stability and efficient service. In its program to reduce over-participation, it caused some packing and processing facilities to become redundant to its operations. The incidence of redundancy was not as high in northwestern Ontario as elsewhere. All claims for compensation received during the year were settled.

The Department provided field service for the Fishing Vessel Insurance Plan, a low-cost insurance program administered by Environment Canada.

FUR SECTION

The activities in fur management continued to expand and emphasize the beaver because of its ecological and economic importance. Beaver work included aerial surveys,

specimen collections from 18 traplines, and studies in pelt priming.

Last year, for the first time, Conservation Officers were supplied with monthly computer printouts of production for all furbearing species by all trappers (A provincial total of 11,000).

New work was initiated in the analysis of pelt data from the Ontario Trappers' Association. The objective is to obtain information on productivity, range quality and pelt priming.

Other work included a study of new techniques of trapping beaver, aerial photography to locate beaver lodges, and habitat evaluation.

RESOURCE DEVELOPMENT SECTION

The policy of the Ministry in northern Ontario favours local residents, mainly Indian bands, in the development of renewable, natural resources. The following projects were carried out during the past fiscal year under the Federal-Provincial Resource Development Agreement.

Indian Delegates. Indians attended district meetings and took an active part in the planning of projects for their reserves under the Agreement.

Fur. Trappers and their families from James Bay were assisted in establishing themselves on vacant traplines in central Ontario.

Lake Surveys. Intensive and short-term surveys were made of lakes to assess their potential for commercial or sports fishing.

Commercial Fish Management. Commercial fishermen were instructed in the netting, cleaning and packing of fish in a project expected to improve substantially the quality of the product and its marketability. Advice was also given on camp sanitation, care of equipment, and bookkeeping methods. The use of trap-nets of a special type was demonstrated to Indian fishermen on Lake of the Woods.

Tourism. Indian bands along the coasts of Hudson and James Bays have been assisted in setting up and operating goose camps at Fort Severn, Winisk, Attawapiskat, Kapiskau River, Fort Albany and Tidewater. In total, the camps grossed $81,000 for the 1971 season.

Hide Collection. Moose and deer hides were collected from hunters throughout the province, and 4,500 hides were distributed at tanning costs to Indian bands for handicraft work or personal use. The hunter received a hand-warmer in return for his donation.

Timber Management. Much of the Ministry's tree planting on Crown lands in the north is done by Indian groups. At the same time, to assist Indians in managing reserve forests, the Ministry provides technical advice on reforestation, logging techniques, and lumber production. At the present time in Kenora District, there are eight reserve operations and 12 Indian Crown operations.

RESOURCE ECONOMICS BRANCH

The former Forest Economics Unit of the former Timber Branch became the principal element of the new Resource Economics Branch, established on April 1, 1971.

During the past year, the Branch released "Primary Wood-Using Industries in Ontario, 1971", the third edition of the directory. Another release, "Rural Lands and Landowners of Southern Ontario", reported the major findings of a mail survey conducted during the summer of 1969.

Work continued on the study of the rationalization of timber licences in northwestern Ontario, which is undertaken in co-operation with the forest products industry in the area, and on the application of benefit-cost measures to ranking silvicultural priorities. Annual surveys of lumber production, pulp chip production and utilization, and interprovincial movements of forest products were also carried out.

Many enterprises were assisted in establishing new wood-using facilities, expanding existing facilities, or finding new producers or purchasers of forest products. One example was a market study which aided an Ontario manufacturer in becoming a leading Canadian producer of hockey stick handles.

Canada's economic recovery, which began toward the end of 1970, became firmly established in the second quarter of 1971. The 1971-2 fiscal year must be viewed as one with a significant improvement in the wood industries. The economic recovery is exemplified by the veneer and plywood industry which had its industrial selling price index rebound and even surpass the high level of the second quarter of 1969.

The most spectacular improvement occurred in the saw and planing mills. The price of lumber products increased by approximately 25 per cent during the year. Canadian housing starts in 1971 reached a record-breaking 234,000 units, an increase of 22 per cent over 1970. With Ontario accounting for more than 40 per cent of these starts, the effect was that most existing saw and planing mills increased their production. At least a dozen mills either undertook new production or expanded existing mill capacities in the Province.

The lumber production of Ontario sawmills during 1971 was 919.4 million board-feet, an increase of almost 12 per cent over the previous year. Most of the increase was in softwood lumber, 15 per cent over 1970, while hardwood lumber output increased by only one per cent. Nevertheless, hardwood lumber prices were unusually high. They were distorted, in part, by the hard maple market which was affected by the boom in Japanese bowling alley construction. Maple lumber output increased by eight per cent. The affect of the Dutch elm disease is noted by a decline of 29 per cent in Ontario's elm lumber production.

The production of wood pulp chips from Ontario saw mill residue materials also increased spectacularly. Almost 950,000 bone dry tons of pulp chips were produced during 1971, an increase of 175,300 tons, or 23 per cent, over the previous year. This increase was a direct result of the greater lumber production and the ten new chip-producing mills which started operation during the year.

The Ontario pulp and paper industry encountered a disappointing year. The national shipments of pulp and paper products decreased by 3.5 per cent from 1970 levels, and the annual operating ratio for the Canadian newsprint mills was a mere 82.6 per cent, the lowest level since 1963. The primary factor was the continuation of the soft world market for pulp and paper products which resulted from the start-up of new production facilities in British Columbia and the southern United States.

LUMBER PRODUCTION BY ONTARIO SAWMILLS in millions of foot-board measure

Administrative Region	Softwoods	Hardwoods	Total Lumber	Mining Timber
Northwestern	215.5	3.0	218.5	9.3
Northeastern	401.6	36.1	437.7	2.9
Southern	100.9	162.4	263.3	28.6
TOTAL, 1971	718.0	201.5	919.4	40.8
TOTAL, 1970	623.6	199.5	823.1	48.4
TOTAL, 1969	649.3	228.6	877.9	73.9
TOTAL, 1968	644.5	222.1	866.6	54.8

(Totals may not add due to rounding.)

ONTARIO-PRODUCED PULP CHIPS, BY ADMINISTRATIVE REGIONS, 1971

	Northwestern Region	Northeastern Region	Southern Region	Quebec	U.S.A.
PRODUCTION					
No. of Producing Mills	14	39	37		
Quantity (bone-dry tons)	330,797	401,092	217,282		
Percentage of Total	34.8	42.3	22.9		
CONSUMPTION					
No. of Consuming Mills	4	4	2	4	4
Quantity (bone-dry tons)	442,193	290,963	23,080	145,259	47,676
Percentage of Total	46.6	30.7	2.4	15.3	5.0

TIMBER MANAGEMENT BRANCH

SILVICULTURE SECTION

The responsibilities of this Section include the regeneration and tending of forest crops on Crown lands and Agreement Forests, and on private lands under The Woodlands Improvement Act.

CROWN LANDS, 1971-2	Acres
Area of cutover	345.405
Area regenerated without silvicultural treatment	95,233
Area regenerated by silvicultural treatment	167,320

TREE SEED PROGRAM

The inventory of forest tree seed in storage at the Ontario Tree Seed Plant at Angus, as of June 1, 1971, was about 2,425,000,000 viable seeds of 51 species, weighing over 14½ tons and valued at approximately $450,000. A conversion to the metric system of measurement for all seed handling was commenced April 1, 1971.

Seed Collection. The year 1971 was a good crop year for walnut and other hardwoods, but gave only a medium and localized crop for the pines and spruces.

1971 SEED CROP Species	Hectolitres Collected
RED PINE	55
JACK PINE	6,020
SCOTS PINE	45
WHITE SPRUCE	509
BLACK SPRUCE	702
NORWAY SPRUCE	74
BLACK WALNUT	1,770
OTHER SPECIES	410
TOTAL	9,585
	(Or 26,358 Bushels)

Seed Distribution. A total of 688,000,000 viable seeds was supplied from storage to carry out 145 seeding projects in the Province during 1971. This seed goes into three main programs:

Nursery Stock Production	314,000,000
Direct Seeding	327,000,000
Tubelings	8,237,000
Research and Miscellaneous	38,763,000
Total Viable Seeds	688,000,000

TREE IMPROVEMENT

Through the application of the scientific principles of forest genetics, we are improving the quality and increasing the quantity of available seed. Our approach includes the selection of additional "Plus Trees", the development of seed production areas, and the planting of grafted trees in seed orchards. The program is concerned mainly with white, red and jack pine, and white black and red spruce.

During the year, we collected 4,625 scions from Plus Trees; these were grafted at our co-operating nurseries. A total of 1,500,000 white spruce planting stock was produced from "improved" seed. From this production, 5,000 of the best trees were selected and planted in the Gurd Township Seed Production Area. In addition, 79 acres of seed production area were thinned, released or improved in other ways. The planting of 2,300 grafted trees was completed on 11.5 acres of seed orchard. A collection of 42 hectolitres of cones was made from seed production areas.

As of March 31, 1972	*Number*	*Acres*
Seed Production Areas	39	436.5
Seed Orchards	13	122.5

SILVICULTURAL OPERATIONS, 1971-72

Acreage Treated	Crown Lands	Agreement Forests	*W.I.A.	Total Acreage
REGENERATION				
Planting				
nursery stock	78,008	2,331	9,343	89,682
container stock	9,947	–	–	9,947
Seeding	22,161	63	110	22,334
Modified harvest cut	27,517	25	53	27,595
Scarification	21,936	10	–	21,946
Seed trees	7,751			7,751
Total Regeneration	167,320	2,429	9,506	179,255
TENDING				
Hand Cleaning	16,170	2,571	81	18,822
Herbicide spraying	24,311	711	692	25,714
Thinning, improvement cuts	9,358	3,127	2,892	15,377
Girdling, filling, poisoning	20,474	418	1,875	22,767
Marking for improvement cuts	2,393	744	65	3,202
Pruning	4,392	2,187	352	6,931
Fertilization	1,177	6	–	1,183
Drainage	–	30	–	30
Total Tending	78,275	9,794	5,957	94,026
TOTAL AREA TREATED	245,595	12,223	15,463	273,281
Site preparation for seeding, planting, or modified harvest cutting	57,796	1,157	2,961	61,914

**Agreements under The Woodlands Improvement Act.*

NURSERY PRODUCTION TARGET, 1971-2

District	Nursery	Number of Trees
Chapleau	Chapleau	2,000,000
Kemptville	Kemptville	10,992,000
Kenora	Dryden	8,484,000
Lake Erie	St. Williams	5,987,000
Lake Simcoe	Midhurst	10,911,000
Lindsay	Orono	5,532,000
Sault Ste. Marie	Thessalon	1,360,000
Sudbury	Gogama	1,500,000
Swastika	Swastika	16,285,000
Thunder Bay	Thunder Bay	17,456,000
TOTAL		80,507,000

Tree Distribution, 1971-2. During the year, the ten provincial nurseries distributed a total of 76,597,391 trees – 15,666,207 for planting on private lands, 60,581,084 for Crown lands and Agreement Forests, and 350,100 for educational or scientific purposes.

SILVICULTURAL DEVELOPMENT

The prototype model of the Ontario Mark II planter, designed and built for the Department for planting under northern Ontario conditions, was successfully tested under a range of site conditions.

Initial tests were completed on a new multi-row, nursery stock lifter designed by the Department.

Work continued with the testing of commercially-built silvicultural equipment under a joint Federal-Provincial program.

ADVISORY SERVICES SECTION

The private land forestry program provides a free advisory service to landowners on the planning and establishing of plantations and the tending and marketing of forest crops. Ultimately, the benefits of this management will be a supply of quality products for wood-using industries.

Advice and guidance is provided for specialized forest crops such as maple syrup and Christmas trees and for other management objectives such a wildlife habitat improvement.

Tours for school groups and others continued at the forest tree nurseries and the Ontario Seed Tree Plant. Departmental staff also conducted instructional tours for landowners with agreements under The Woodlands Improvement Act.

Exhibits were prepared and manned at major exhibitions and local fairs.

Publications were revised and published to instruct landowners in the essentials of private land forestry.

During the year, 466 agreements under The Woodlands Improvement Act were processed; these referred to 17,924 acres. The total number of agreements in effect on March 31, 1972, was 2,379, covering a total area of 128,727 acres.

A total of 6,005 acres were added to the agreement forest program under Section 2 of The Forestry Act. As of March 31, 1972, 244,150 acres were under agreement with the Minister for forestry management.

SUMMARY OF THE FOREST ADVISORY AND ASSISTANCE SERVICES PROVIDED TO PRIVATE LANDOWNERS AND ORGANIZATIONS, 1971-2

TOTAL NUMBER OF INQUIRIES RECEIVED		22,300
NUMBER OF FIELD INSPECTIONS MADE		4,590
(a) to advise on planting	1,825	
(b) to advise on forest management	1,075	
(c) to advise on maple syrup and Christmas trees	190	
(d) for miscellaneous purposes, e.g. insects, windbreaks	1,500	
NUMBER OF MANAGEMENT PROGRAMS PREPARED		1,100
(a) advisory services programs	634	
(b) Woodlands Improvement Act programs	466	
TOTAL NUMBER OF ACRES OF PRIVATE FOREST LAND FOR WHICH MANAGEMENT PLANS WERE PREPARED		25,585
(a) advisory services programs	7,661	
(b) Woodlands Improvement Act programs	17,924	
TOTAL NUMBER OF TREES PLANTED ON PRIVATE LANDS		15,666,207
(a) advisory services programs	7,580,382	
(b) Woodlands Improvement Act programs	8,085,825	
TOTAL NUMBER OF ACRES OF FOREST LAND TREATED DURING THE YEAR UNDER THE WOODLANDS IMPROVEMENT ACT		15,463
(a) reforestation	9,506	
(b) Woodlands Improvement	5,957	
TOTAL VOLUME OF TIMBER MARKED UNDER THE ADVISORY SERVICES PROGRAM		
(a) saw timber	1,715,752 cu. ft.	
(b) pulpwood	2,890 cords	
ACTIVITIES WITH YOUTH GROUPS–TOTAL NUMBER OF GROUPS		362
(a) 4H Forestry Clubs	23	
(b) 4H Conservation Clubs	12	
(c) Resource Rangers	29	
(d) Other Groups–Boy Scouts, Girl Guides, etc.	298	
PUBLIC EDUCATION ACTIVITIES		1,409
(a) newspapers–articles	219	
–paid advertisements	16	
(b) number of radio and T.V. programs arranged	26	
(c) number of field days and tours	572	
(d) meetings with municipal or conservation authority officials	244	
(e) number of demonstration areas established	6	
(f) number of exhibits arranged	59	
(g) miscellaneous	267	
HOURS SPENT ON FORESTRY INSTRUCTION		189
(a) University of Guelph	26	
(b) Lakehead University	49	
(c) Kemptville College of Agricultural Technology	52	
(d) Ridgetown College of Agricultural Technology	6	
(e) University of Toronto	32	
(f) Marathon Conservation School	12	
(g) Parry Sound Board of Education	12	

TIMBER SALES BRANCH

RESOURCES INVENTORY SECTION

Aerial photography was completed on 23,810 square miles covering parts of the Cochrane, Swastika, Sudbury and North Bay Districts in northern Ontario and parts of the Kemptville, Tweed, Lindsay and Lake Simcoe Districts in southern Ontario.

Forest stand maps and tabulated inventory data were completed on 11,325 square miles. These data covered the Management Units of Greenhill Working Circles 1 and 2, Ranger Lake, Chapleau Working Circles 2 and 3, Peshu, Wenebegon, Abitibi Sault (part), Abitibi Smooth Rock Falls (part), and Lake St. Joseph Working Circle 2. Kakakiwibik Park and part of the Kapuskasing blowdown area were also covered.

The Multiplex machine was used to plot the contour and form lines of one Provincial Park covering 4,608 acres.

The photo processing unit produced 100,512 contract prints, 1,983 mosaics, 3,920 enlargements, 1,023 diapositives, 1,119 copy negatives and 4,369 square feet of repropositives.

Gross Value of Photo Processing Production

Year	Cash Receipts	Department Work	Total
1968-69	$63,451.15	$51,258.79	$114,709.94
1969-70	79,280.06	53,496.76	132,786.82
1970-71	67,342.68	36,081.64	103,424.32
1971-72	77,527.77	28,279.90	105,807.67

MANAGEMENT PLANNING SECTION

The development of forest areas is based on management plans that provide detailed information about the volume of annual cut, cutting methods, regeneration treatments, road and camp locations, and other facts essential to orderly management. Detailed operating plans conform with the management plans.

Crown Management Units. The plans for these units are prepared by Ministry staff. There are now 86 Units comprising an area of 100,566 square miles with 76 management plans.

33 Standard Management Plans in force	21,921 square miles
25 Standard Plans being prepared for Ministerial Approval	24,393 square miles
18 Initial Management or Operating Plans in force	26,233 square miles
10 Management Units not under plans	28,019 square miles

Company Management Units. The management plans for these Units are prepared by the licensees. There are 57 Company Units with 89,985 square miles under licence to 38 companies. The status of management planning is as follows.

29 Approved Management Plans	33,985 square miles
11 Plans being processed for Ministerial Approval	11,244 square miles
17 Plans being revised or prepared	42,756 square miles

Agreement Forest Units. The management plans for these units are prepared by Ministry staff. There are 60 units covering approximately 360 square miles or 230, 351 acres. The status of management planning is as follows.

20 Approved Standard Plans	103,397 acres
13 Plans being processed for Ministerial Approval	40,108 acres
27 Plans in process of preparation	86,846 acres

ACCESS ROADS

Road work was carried out under two categories.

Logging Access Roads are primarily designed for the extraction of timber products. The costs are recovered over a five-year period through an increase in stumpage rates on the timber which has been made accessible. 6.5 miles of new roads were built, and 5.3 miles were improved.

Forest Access Roads are built for a variety of purposes such as timber extraction, forest improvement, forest protection, hunting and fishing, and other forest uses. 108.0 miles of new roads were built, and 19.5 miles were improved.

TIMBER LICENSING SECTION

The Section is concerned with the issuance and control of timber licences which provide the authority for cutting timber on Crown lands.

On September 1, 1971, Crown stumpage rates were reduced on all spruce and jack pine timber harvested north of the north line of the Canadian National Railway.

SCALING

Mechanization and rapidly changing logging techniques have brought about many new concepts in wood measurement, the most promising of which is weight scaling. Hardwood pulpwood, conifer pulpwood, sawlogs and tree lengths are now being weight-scaled at several locations throughout the Province.

Scaling examinations were held at Huntsville on May 14, 1971, and at North Bay on September 24, 1971. Forty-nine new scalers were licensed at these two courses and 1,133 scaler licences were renewed for a three-year period.

Standardized refresher courses for licensed scalers were held in 10 different locations to maintain a high, uniform standard and to keep scalers informed of the latest techniques and procedures. Three hundred and sixteen scalers attended these four-day courses.

CROWN TIMBER SALES, 1971-2

	Square Miles
New Licences issued under Section 2 C.T.A.	4.4
New Licences issued under Section 3 C.T.A.	68,621.0
New Licences issued under Section 5 C.T.A.	83.5
TOTAL	68,708.9

Licensed areas in the amount of 68,566.7 square miles were abandoned.

AREAS UNDER CROWN TIMBER LICENCE

Area in square miles, March 31

Year	Licences under Section 2	Licences under Section 3	Licences under Section 5	Total Area
1968	1,704.2	104,134.6	74.0	105,912.8
1969	1,664.7	101,924.3	74.0	103,663.0
1970	1,497.6	98,661.9	115.8	100,275.3
1971	302.7	95,201.3	142.2	95,646.2
1972	299.6	95,317.7	171.1	95,788.4

VOLUME AND VALUE OF WOOD CUT FROM AGREEMENT FORESTS, 1971-2

	Volume cu. ft.	Value
Sawlogs (cu. ft.)	140,556.04	$17,275.51
Poles and Posts (cu. ft.)	14,253.14	2,225.85
Fuelwood (cords)	1,560.21	4,592.74
Pulpwood (cords)	12,205.50	60,876.81
Miscellaneous	—	5,611.46
Total all Products	1,324,894.53*	$90,582.37

VOLUME AND VALUE OF WOOD CUT FROM CROWN LAND, 1971-2

Species	Volume Cu. Ft.	Stumpage Value
Softwoods		
White Pine	12,207,026.19	787,156.87
Red Pine	3,897.228.45	236,928.06
Jack Pine	127,311,009.25	3,245,482.98
Scots Pine	32,146.15	682.47
Spruce	183,011,378.77	6,256,936.39
Hemlock	1,707,333.28	45,823.43
Balsam	10,655,668.06	230,971.69
Cedar	358,262.11	13,404.30
Tamarack	47,517.97	1,233.80
Conifers	105,549.85	1,788.90
Total	339,333,120.08	10,820,408.89
Hardwoods		
Maple	7,605,320.55	381,279.28
Yellow Birch	4,863,013.94	457,915.45
White Birch	2,106,982.91	49,856.07
Oak	284,546.28	18,143.36
Beech	380,678.65	10,222.31
Ash	62,864.91	3,847.15
Elm	188,351.25	10,615.52
Basswood	426,397.28	29,676.71
Butternut	150.84	8.07
Ironwood	85.19	4.55
Black Cherry	41,896.14	1,790.11
Poplar	23,848,017.54	248,168.18
Hardwoods	10,529,599.62	150,745.06
Total	50,337,905.10	1,362,271.82
Total Wood Cut	389,671,025.18	$12,182,680.71

SUMMARY

SUMMARY OF VOLUME AND VALUE OF TIMBER CUT ON CROWN LAND, 1971-2

Class	Species	Pieces	Volume	Equivalent Cubic Feet	Stumpage
CORDAGE					$
Pulpwood Rough	White Pine		5,461.11	464,195.55	11,218.97
	Red Pine		7,588.99	645,064.20	17,211.50
	Jack Pine		410,852.85	34,922,492.00	905,566.76
	Scots Pine		378.19	32,146.15	682.47
	Spruce		634,906.77	53,967,076.05	1,859,189.12
	Hemlock		3,277.63	278,598.55	6,185.34
	Balsam		35,359.99	3,005,597.95	69,757.91
	Cedar		867.83	73,765.55	1,936.78
	Tamarack		83.35	7,084.25	160.73
	Conifers		474.87	40,363.95	1,252.34
	Maple		489.67	41,621.95	477.37
	Yellow Birch		90.25	7,671.25	1,060.38
	White Birch		5,967.43	507,231.55	6,454.65
	Oak		24.43	2,076.55	18.32
	Ash		8.03	682.55	7.14
	Elm		235.28	19,998.80	352.69
	Basswood		1.15	97.75	0.88
	Black Cherry		0.32	27.20	0.24
	Poplar		130,574.63	11,098,843.60	89,306.09
	Hardwoods		13,376.94	1,136,869.09	38,746.67
	TOTAL		1,250,319.71	106,251,504.49	3,009,586.35

Pulpwood Peeled	Jack Pine		8,117.94	811,794.00	19,888.72
	Spruce		52,867.98	5,286,798.00	196,723.06
	Balsam		9,432.94	943,294.00	20,699.17
	Tamarack		0.35	35.00	0.79
	White Birch		122.51	12,251.00	133.99
	Poplar		20,598.58	2,059,858.00	20,392.80
	Hardwoods		205.77	20,577.00	174.92
	TOTAL		91,346.07	9,134,607.00	258,013.45
Veneer Bolts	White Pine		247.70	21,054.50	718.34
	Jack Pine		294.38	25,022.30	618.20
	Spruce		2,736.88	232,634.80	8,567.26
	Balsam		3.63	308.55	9.30
	White Birch		2,197.71	186,805.35	1,726.68
	Poplar		16,857.47	1,432,884.95	12,673.65
	TOTAL		22,337.77	1,898,710.45	24,313.43
Fuelwood	Softwoods		651.37	55,366.45	393.78
	Hardwoods		4,396.24	373,680.40	4,355.06
	TOTAL		5,047.61	429,046.85	4,748.84
	TOTAL CORDAGE		1,369,051.16	117,713,868.79	3,296,662.07
LOGS, LONG TIMBERS					$
Pulp Logs	White Pine	87,178	369,242.84	369,242.84	6,366.83
	Red Pine	19,509	74,334.74	74,334.74	2,108.13
	Jack Pine	1,060,616	5,329,674.87	5,329,674.87	100,847.72
	Spruce	4,443,219	15,929,183.21	15,929,183.21	465,782.38
	Hemlock	6,385	40,905.18	40,905.18	731.16
	Balsam	236,031	962,521.80	962,521.80	17,269.22
	Cedar		57.92	57.92	3.48
	Tamarack	26	124.63	124.63	2.24
	Maple	15,825	120,583.56	120,583.56	800.25
	Yellow Birch	4,668	32,614.98	32,614.98	204.13
	White Birch		1,682.32	1,682.32	35.27
	Oak		791.61	791.61	47.50
	Beech		123.70	123.70	7.42
	Ash		93.24	93.24	5.59
	Elm		165.66	165.66	9.95
	Basswood		364.36	364.36	21.86
	Ironwood		53.99	53.99	3.24
	Black Cherry		20.51	20.51	1.23
	Poplar	13	12,961.84	12,961.84	184.16
	Hardwoods	123,666	749,159.43	749,159.43	6,404.49
	TOTAL	5,997,136	23,624,660.39	23,624,660.39	600,836.25
Sawlogs (Cu. Ft.)	White Pine	119,975	1,661,702.04	1,661,702.04	99,604.10
	Red Pine	83,757	790,547.40	790,547.40	49,103.55
	Jack Pine	2,676,873	15,185,394.39	15,185,394.39	424,368.24
	Spruce	3,311,043	17,568,648.30	17,568,648.30	505,574.69
	Hemlock	3,167	21,627.60	21,627.60	402.57
	Balsam	95,153	482,403.64	482,403.64	13,245,51
	Cedar	2,587	128,761.41	128,761.41	1,095.78
	Tamarack	309	9,564.91	9,564.91	375.76
	Conifers		9,495.00	9,495.00	126.20
	Maple	19	4,777.19	4,777.19	119.91
	Yellow Birch	2,492	24,262.11	24,262.11	285.93
	White Birch	31,832	217,012.25	217,012.25	3,003.75
	Ash		3,461.95	3,461.95	67.60
	Basswood		17.00	17.00	0.34
	Ironwood		15.40	15.40	0.31
	Black Cherry	25	864.57	864.57	33.74
	Poplar	268,183	2,226,649.85	2,226,649.85	27,881.62
	Hardwoods	41,206	301,380.89	301,380.89	8,857.36
	TOTAL	6,636,621	38,636,585.90	38,636,585.90	1,134,146.96

SUMMARY *(Continued)*

SUMMARY OF VOLUME AND VALUE OF TIMBER CUT ON CROWN LAND, 1971-2

Class	Species	Pieces	Volume	Equivalent Cubic Feet	Stumpage
					$
Veneer Logs (Cu. Ft.)	White Pine	332	2,828.74	2,828.74	129.42
	Jack Pine	5,798	38,548.19	38,548.19	952.17
	Spruce	77,656	561,358.51	561,358.51	19,363.65
	White Birch	31,519	260,405.86	260,405.86	5,666.59
	Poplar	763,180	4,887,489.84	4,887,489.84	61,893.65
	TOTAL	878,485	5,750,631.14	5,750,631.14	88,005.48
Long Timber	White Pine	3,240	33,548.80	33,548.80	3,114.21
	Red Pine	22,429	421,906.66	421,906.66	44,236.74
	Jack Pine	14,246	153,386.96	153,386.96	9,484.30
	Spruce	7,534	37,478.30	37,478.30	2,632.49
	Hemlock	1,225	40,388.68	40,388.68	2,372.79
	Balsam	169	2,736.84	2,736.84	174.85
	Cedar	292	4,154.64	4,154.64	248.76
	Tamarack	175	2,024.00	2,024.00	80.97
	Conifers	14	324.45	324.45	16.58
	Maple	108	2,912.50	2,912.50	163.78
	Yellow Birch	5	33.88	33.88	3.73
	White Birch	19	82.06	82.06	5.42
	Oak	21	164.33	164.33	10.87
	Basswood	9	86.28	86.28	4.59
	Poplar	82	1,460.99	1,460.99	80.10
	Hardwoods	10	271.09	271.09	22.76
	TOTAL	49,578	700,960.46	700,960.46	62,652.94
Sawlogs M.B.M.	White Pine	694,150	58,981.75	9,580,494.48	662,790.09
	Red Pine	143,815	9,506.89	1,581,058.14	99,272.90
	Jack Pine	44,161	1,119.93	231,525.43	7,218.79
	Spruce	173,291	8,127.59	1,434,147.67	80,928.74
	Hemlock	94,110	7,316.75	1,188,036.84	33,703.87
	Balsam	15,497	342.56	70,608.33	4,577.29
	Cedar	6,687	160.04	30,291.92	1,341.50
	Tamarack	198	7.94	1,345.19	55.40
	Maple	623,837	46,304.23	7,420,044.78	377,015.85
	Yellow Birch	428,914	31,487.95	4,798,431.72	456,361.28
	White Birch	96,760	4,675.47	777,703.87	28,481.99
	Oak	30,858	1,676.09	281,513.79	18,066.67
	Beech	37,240	2,333.16	380,554.95	10,214.89
	Ash	6,713	348.05	58,627.17	3,766.82
	Elm	11,070	1,063.52	168,186.79	10,252.88
	Basswood	44,161	2,523.15	425,831.89	29,649.04
	Butternut	11	.81	150.84	8.07
	Ironwood	2	.10	15.80	1.00
	Black Cherry	3,897	254.68	40,983.86	1,754.90
	Poplar	100,225	5,124.47	898,720.46	22,524.49
	TOTAL	2,555,597	181,355.13	29,368,273.92	1,847,986.46
Veneer Logs M.B.M.	Maple	68	3.11	539.57	52.87
	White Birch	110	6.15	1,032.78	123.00
	Poplar	2	0.44	65.96	1.54
	TOTAL	180	9.70	1,638.31	177.41
	TOTAL LOGS, LONG TIMBERS	16,117,597		98,082,750.12	3,733,805.50

Class	Species	Pieces	Volume		Equivalent Cubic Feet	Stumpage
TREE LENGTH MATERIAL						$
	White Pine	1,717	53,008.23		53,008.23	2,816.96
	Red Pine	181	8,405.68		8,405.68	314.78
	Jack Pine	5,121,330	53,171,944.51		53,171,944.51	1,396,127.38
	Spruce	12,843,675	75,983,307.87		75,983,307.87	2,733,634.98
	Balsam	914,752	5,010,172.81		5,010,172.81	100,971.65
	Tamarack	3,407	27,339.99		27,339.99	557.91
	White Birch	9,594	125,224.16		125,224.16	999.60
	Poplar	25,302	466,515.91		466,515.91	3,504.13
	Jack Pine	586,569	24,323.05	MBM	4,562,173.10	97,292.20
	Spruce	85,841	2,318.60		433,696.63	12,755.45
	TOTAL	19,592,368			139,841,788.89	4,348,975.04
WEIGHT MEASURE						
	White Pine		12,606.76		20,951.01	397.95
	Red Pine		238,841.97		375,846.63	24,679.16
	Jack Pine		7,241,038.31		12,879,053.50	283,118.50
	Spruce		6,241,145.29		11,575,024.03	371,682.72
	Hemlock		96,634.05		137,776.43	2,427.70
	Balsam		99,556.52		177,747.14	4,211.09
	Maple		10,389.20		14,841.00	2,649.25
	White Birch		12,286.20		17,551.71	3,225.13
	Poplar		474,060.81		762,566.14	9,725.95
	Hardwoods		5,528,888.13		7,887,040.57	91,470.61
	TOTAL		19,955,447.24		33,848,398.16	793,588.06
MISCELLANEOUS						
Poker Poles	Hardwoods		713.19	Cords	60,621.15	713.19
Mining Timber	Spruce	1,000	1,105.60		1,105.60	39.80
Posts	Cedar		107.92	Cords	9,173.33	222.67
	Spruce	600	600.00		600.00	30.00
	Cedar	5,321	5,647.23		5,647.23	197.64
	Red Pine	130	130.00	Pieces	65.00	1.30
	Cedar	7,947	7,947.00	"	3,973.50	79.47
	Spruce	10	250.00	Lin. Ft.	50.00	5.00
	Cedar	47,109	416,027.16	" "	102,436.61	8,278.22
Christmas Trees	Spruce	541	541.00	Pieces	269.80	27.05
	Balsam	554	554.00	"	277.00	55.70
	TOTAL				184,219.22	9,650.04
	GRAND TOTAL	63,212			389,671,025.18	12,182,680.71

(Number of District Cutting Licences Issued and Included in Above: 2,217)

TIMBER SALES FROM APRIL 1, 1971, TO MARCH 31, 1972

Date Sold 1971	Locality	Area Sq. M.	No. of Tenders	To Whom Sold	Kind of Timber		Bid $	Bonus $	Road Charge $	Dues $	Total $
July 7	Mayo Township	0.2	5	L'Amable Lumber Ltd. L'Amable, Ontario	White pine	saw-logs	20.00	11.00		5.00	36.00 per MBM
					Red pine	saw-logs	20.00	11.00		5.00	36.00 per MBM
					Spruce	saw-logs	20.00	12.00		4.00	36.00 per MBM
					Balsam	saw-logs	20.00	6.00		4.00	30.00 per MBM
					Hemlock	saw-logs	6.00	6.00		3.00	15.00 per MBM
					Cedar	saw-logs	16.00	6.00		3.00	25.00 per MBM
					Basswood	saw-logs	14.00	11.00		5.00	30.00 per MBM
					Maple	saw-logs	16.00	9.00		5.00	30.00 per MBM
					Yellow birch	saw-logs	14.00	11.00		5.00	30.00 per MBM
					Elm	saw-logs	15.00	5.00		5.00	25.00 per MBM
					Ash	saw-logs	15.00	5.00		5.00	25.00 per MBM
					Oak	saw-logs	12.00	8.00		5.00	25.00 per MBM
					Beech	saw-logs	9.00	4.50		1.50	15.00 per MBM
					White birch	saw-logs	12.00	6.50		1.50	20.00 per MBM
					Poplar	saw-logs	10.00	4.50		1.50	16.00 per MBM
					Hardwood	pulpwood	0.75	0.25		0.50	1.50 per cord
					Balsam	pulpwood	0.50	0.60		1.40	2.50 per cord
					Spruce	pulpwood	0.50	0.20		2.80	3.50 per cord
July 13	Grimsthorpe Township	0.2	1	William F. Smith R.R. # 1 Gilmour, Ontario	White pine	saw-logs	6.25	11.00		5.00	22.25 per MBM
					Red pine	saw-logs	6.50	11.00		5.00	22.50 per MBM
					Spruce	saw-logs	5.25	12.00		4.00	21.25 per MBM
					White birch	saw-logs	9.00	6.50		1.50	17.00 per MBM
					Poplar	saw-logs	7.00	4.50		1.50	13.00 per MBM
					White pine	pulpwood	0.10	0.10		1.40	1.60 per cord
					Red pine	pulpwood	0.10	0.10		1.40	1.60 per cord
					Hardwood	pulpwood	0.25	0.25		0.50	1.00 per cord
July 13	Abinger Township	0.3	2	Vernard Kring Plevna, Ontario	White pine	saw-logs	10.00	10.00		5.00	25.00 per MBM
					Red pine	saw-logs	10.00	10.00		5.00	25.00 per MBM
					Spruce	saw-logs	9.00	12.00		4.00	25.00 per MBM
					Balsam	saw-logs	8.00	6.00		4.00	18.00 per MBM
					Cedar	saw-logs	10.00	5.00		3.00	18.00 per MBM
					Maple	saw-logs	8.00	8.00		5.00	21.00 per MBM
					Yellow birch	saw-logs	4.00	11.00		5.00	20.00 per MBM
					White birch	saw-logs	4.00	6.50		1.50	12.00 per MBM
					Poplar	saw-logs	6.00	4.50		1.50	12.00 per MBM
					Hardwood	pulpwood	0.25	0.25		0.50	1.00 per cord
					Balsam	pulpwood	0.25	0.60		1.40	2.25 per cord

July 26	Abinger Township	0.2	2	William Petzold Denbigh, Ontario	White pine	saw-logs	7.50	10.00	5.00	22.50 per MBM
					Red pine	saw-logs	7.00	10.00	5.00	22.00 per MBM
					Spruce	saw-logs	4.00	12.00	4.00	20.00 per MBM
					Balsam	saw-logs	5.00	6.00	4.00	15.00 per MBM
					White birch	saw-logs	8.00	6.50	1.50	16.00 per MBM
					Poplar	saw-logs	4.00	4.50	1.50	10.00 per MBM
					Maple	saw-logs	1.00	8.00	5.00	14.00 per MBM
					Hardwood	pulpwood	–	0.25	0.50	0.75 per cord
					Balsam	pulpwood	–	0.60	1.40	2.00 per cord
August 16	Gould Township	0.2	6	Aldage Piche 201 Main Street Thessalon, Ontario	Maple	saw-logs	9.00	5.00	5.00	19.00 per MBM
					Hemlock	saw-logs	4.00	3.00	3.00	10.00 per MBM
					Oak	saw-logs	7.00	5.00	5.00	17.00 per MBM
					White pine	saw-logs	5.00	10.00	5.00	20.00 per MBM
					Poplar	saw-logs	2.00	4.50	1.50	8.00 per MBM
					Yellow birch of veneer quality	saw-logs	28.00	25.00	5.00	58.00 per MBM
August 16	Adams Township	0.1	2	Oscar Fleury 169 Bannerman Avenue Timmins, Ontario	Jack pine	pulpwood	4.60	1.40	2.00	8.00 per cord
August 17	Evelyn Township	0.1	1	A.M. Ryan 133 Carlin Avenue Timmins, Ontario	Jack pine	pulpwood	6.85	1.40	2.00	10.25 per cord
August 17	Evelyn Township	0.1	1	Kauko Vastila 262 Algonquin Blvd., West Timmins, Ontario	Jack pine	pulpwood	6.85	1.40	2.00	10.25 per cord
August 17	Evelyn Township	0.1	1	Edward Pedskalny Porquis, Ontario	Spruce	pulpwood	1.00	0.60	2.80	4.40 per cord
					Balsam	pulpwood	1.75	0.85	1.40	4.00 per cord
August 17	Little Township	0.1	1	Melford Prince Box 256 Iroquois Falls, Ontario	Spruce	pulpwood	0.95	0.60	2.80	4.35 per cord
August 18	Little and McCart Townships	0.6	1	Helen O. and John Puckalo P.O. Box 11 Iroquois Falls, Ontario	Spruce	pulpwood	0.15	0.60	2.80	3.55 per cord

TIMBER SALES FROM APRIL 1, 1971, TO MARCH 31, 1972 *(Continued)*

Date Sold 1971	Locality	Area Sq. M.	No. of Tenders	To Whom Sold	Kind of Timber		Bid $	Bonus $	Road Charge $	Dues $	Total $
September 27	Grimsthorpe Township	0.3	2	Richard McMurray Gilmour, Ontario	White pine	saw-logs	4.00	11.00		5.00	20.00 per MBM
					Spruce	saw-logs	4.00	12.00		4.00	20.00 per MBM
					Balsam	saw-logs	4.00	6.00		4.00	14.00 per MBM
					Hemlock	saw-logs	8.00	5.00		3.00	16.00 per MBM
					Cedar	saw-logs	8.00	5.00		3.00	16.00 per MBM
					Basswood	saw-logs	4.00	12.00		5.00	21.00 per MBM
					Maple	saw-logs	6.00	9.00		5.00	20.00 per MBM
					Yellow birch	saw-logs	12.00	11.00		5.00	28.00 per MBM
					Elm	saw-logs	10.00	5.00		5.00	20.00 per MBM
					Ash	saw-logs	5.00	5.00		5.00	15.00 per MBM
					Oak	saw-logs	10.00	7.00		5.00	22.00 per MBM
					Beech	saw-logs	10.00	4.50		1.50	16.00 per MBM
					White birch	saw-logs	11.00	6.50		1.50	19.00 per MBM
					Poplar	saw-logs	5.00	4.50		1.50	11.00 per MBM
					Hardwood	pulpwood	0.05	0.25		0.50	0.80 per cord
September 27	Herschel Township	0.2	8	David McMurray Gilmour, Ontario	White pine	saw-logs	12.50	10.00		5.00	27.50 per MBM
					Spruce	saw-logs	12.50	12.00		4.00	28.50 per MBM
					Balsam	saw-logs	12.50	6.00		4.00	22.50 per MBM
					Hemlock	saw-logs	12.50	5.00		3.00	20.50 per MBM
					Cedar	saw-logs	12.50	5.00		3.00	20.50 per MBM
					Basswood	saw-logs	15.00	12.00		5.00	32.00 per MBM
					Maple	saw-logs	17.00	9.00		5.00	31.00 per MBM
					Yellow birch	saw-logs	26.00	9.00		5.00	40.00 per MBM
					Elm	saw-logs	12.50	5.00		5.00	22.50 per MBM
					Ash	saw-logs	20.00	5.00		5.00	30.00 per MBM
					Oak	saw-logs	20.00	8.00		5.00	33.00 per MBM
					Beech	saw-logs	10.00	4.50		1.50	16.00 per MBM
					White birch	saw-logs	32.00	6.50		1.50	40.00 per MBM
					Poplar	saw-logs	22.00	4.50		1.50	28.00 per MBM
					Cherry	saw-logs	30.00	5.00		5.00	40.00 per MBM
					Hardwood	pulpwood	0.75	0.25		0.50	1.50 per cord
					Balsam	pulpwood	1.00	0.60		1.40	3.00 per cord
September 30	Ashby Township	0.1	1	George Stein Palmer Rapids, Ontario	Hemlock	saw-logs	7.00	5.00		3.00	15.00 per MBM
					Cedar	saw-logs	5.00	5.00		3.00	13.00 per MBM
					Basswood	saw-logs	5.00	11.00		5.00	21.00 per MBM
					Maple	saw-logs	12.00	8.00		5.00	25.00 per MBM
					Yellow birch	saw-logs	10.00	11.00		5.00	26.00 per MBM

					Elm	saw-logs	5.00	5.00	5.00	15.00 per MBM
					Ash	saw-logs	5.00	5.00	5.00	15.00 per MBM
					Oak	saw-logs	8.00	7.00	5.00	20.00 per MBM
					Beech	saw-logs	8.00	4.50	1.50	14.00 per MBM
					White birch	saw-logs	8.00	6.50	1.50	16.00 per MBM
					Poplar	saw-logs	6.00	4.50	1.50	12.00 per MBM
					Hardwood	pulpwood	–	0.25	0.50	0.75 per cord
October 4	Ashby Township	0.1	1	George Stein Palmer Rapids, Ontario	White pine	saw-logs	10.00	10.00	5.00	25.00 per MBM
					Spruce	saw-logs	10.00	12.00	4.00	26.00 per MBM
					Hemlock	saw-logs	5.00	5.00	3.00	13.00 per MBM
					Cedar	saw-logs	5.00	5.00	3.00	13.00 per MBM
					Maple	saw-logs	10.00	8.00	5.00	23.00 per MBM
					Yellow birch	saw-logs	14.00	11.00	5.00	30.00 per MBM
					White birch	saw-logs	8.00	6.50	1.50	16.00 per MBM
					Oak	saw-logs	5.00	7.00	5.00	17.00 per MBM
					Beech	saw-logs	6.00	4.50	1.50	12.00 per MBM
					Basswood	saw-logs	9.00	11.00	5.00	25.00 per MBM
					Poplar	saw-logs	4.00	4.50	1.50	10.00 per MBM
					Hardwood	pulpwood	–	0.25	0.50	0.75 per cord
October 28	McConkey Township	0.1	2	Ben Brown Loring, Ontario	Maple	saw-logs	18.00	7.00	5.00	30.00 per MBM
					Elm	saw-logs	8.00	5.00	5.00	18.00 per MBM
					Basswood	saw-logs	15.00	10.00	5.00	30.00 per MBM
					Yellow birch	saw-logs	15.00	15.00	5.00	35.00 per MBM
					Oak	saw-logs	5.00	5.00	5.00	15.00 per MBM
					Ash	saw-logs	5.00	5.00	5.00	15.00 per MBM
					Spruce	saw-logs	3.00	8.00	4.00	15.00 per MBM
					Poplar	saw-logs	1.00	3.50	1.50	6.00 per MBM
November 18	McClure Township	0.1	3	David McMurray Gilmour, Ontario	White pine	saw-logs	12.00	10.00	5.00	27.00 per MBM
					Spruce	saw-logs	12.00	12.00	4.00	28.00 per MBM
					Balsam	saw-logs	12.00	6.00	4.00	22.00 per MBM
					Hemlock	saw-logs	10.00	5.00	3.00	18.00 per MBM
					Cedar	saw-logs	12.00	5.00	3.00	20.00 per MBM
					Tamarack	saw-logs	10.00	5.00	3.00	18.00 per MBM
					Basswood	saw-logs	15.00	12.00	5.00	32.00 per MBM
					Maple	saw-logs	17.00	9.00	5.00	31.00 per MBM
					Yellow birch	saw-logs	26.00	9.00	5.00	40.00 per MBM
					Elm	saw-logs	12.00	5.00	5.00	22.00 per MBM
					Ash	saw-logs	20.00	5.00	5.00	30.00 per MBM
					Oak	saw-logs	20.00	8.00	5.00	33.00 per MBM
					Beech	saw-logs	10.00	4.50	1.50	16.00 per MBM
					White birch	saw-logs	30.00	6.50	1.50	38.00 per MBM
					Poplar	saw-logs	20.00	4.50	1.50	26.00 per MBM
					Cherry	saw-logs	20.00	5.00	5.00	30.00 per MBM

TIMBER SALES FROM APRIL 1, 1971, TO MARCH 31, 1972 *(Continued)*

Date Sold 1971	Locality	Area Sq. M.	No. of Tender	To Whom Sold	Kind of Timber		Bid $	Bonus $	Road Charge $	Dues $	Total $
					Hardwood	pulpwood	0.75	0.25		0.50	1.50 per cord
					Balsam	pulpwood	1.00	0.60		1.40	3.00 per cord
November 18	VanKoughnet Township	0.4	1	Lorne Dunn 1719 Gt. Northern Road Sault Ste. Marie, Ontario	White pine	saw-logs	1.00	15.00		5.00	21.00 per MBM
					Spruce	saw-logs	1.00	11.00		4.00	16.00 per MBM
					Balsam	saw-logs	1.00	11.00		4.00	16.00 per MBM
					Cedar	saw-logs	5.00	7.00		3.00	15.00 per MBM
					Maple	saw-logs	0.25	15.00		5.00	20.25 per MBM
					Yellow birch	saw-logs	11.50	25.00		5.00	41.50 per MBM
					White birch	saw-logs	10.00	18.50		1.50	30.00 per MBM
November 23	Bridgland Township	0.1	4	Leonard N. Smith R.R. # 2 Thessalon, Ontario	Yellow birch of veneer quality	saw-logs	29.00	25.00		5.00	59.00 per MBM
					Maple	saw-logs	10.00	5.00		5.00	20.00 per MBM
					Hemlock	saw-logs	1.00	3.00		3.00	7.00 per MBM
December 10	Blair Township	0.1	4	Dale Brooks Port Loring, Ontario	Maple	saw-logs	19.00	7.00		5.00	31.00 per MBM
					Yellow birch	saw-logs	11.00	15.00		5.00	31.00 per MBM
					White birch	saw-logs	21.00	8.50		1.50	31.00 per MBM
					Basswood	saw-logs	16.00	10.00		5.00	31.00 per MBM
					Elm	saw-logs	26.00	—		5.00	31.00 per MBM
					Ash	saw-logs	21.00	5.00		5.00	31.00 per MBM
December 17	Boulter Township	0.1	2	William Sloan Box 257 South River, Ontario	Maple	saw-logs	6.00	4.00		5.00	15.00 per MBM
					Yellow birch	saw-logs	23.00	12.00		5.00	40.00 per MBM
					Poplar	saw-logs	3.50	5.00		1.50	10.00 per MBM
					White birch	saw-logs	5.50	5.00		1.50	12.00 per MBM
					Ash	saw-logs	5.00	5.00		5.00	15.00 per MBM
					Elm	saw-logs	5.00	5.00		5.00	15.00 per MBM
					Beech	saw-logs	3.50	5.00		1.50	10.00 per MBM
					Hemlock	saw-logs	2.00	5.00		3.00	10.00 per MBM
					Spruce	saw-logs	3.00	5.00		4.00	12.00 per MBM
					Balsam	saw-logs	3.00	3.00		4.00	10.00 per MBM
					White pine	saw-logs	5.00	5.00		5.00	15.00 per MBM

1972

January 3	Unsurveyed Territory Kenora District	0.5	1	Gustav Sotke Box 221 Red Lake, Ontario	Spruce	pulpwood	1.50	--	1.10	1.80	4.40 per cord
					Jack pine	pulpwood	1.20	--		1.00	2.20 per cord
					Balsam	pulpwood	0.40			1.40	1.80 per cord
					Tamarack	pulpwood				1.40	1.40 per cord
					Poplar	pulpwood	–		–	0.50	0.50 per cord
					White birch	pulpwood	–	-	–	0.50	0.50 per cord
					Fuelwood			–	–	0.50	0.50 per cord
January 18	Proudfoot Township	0.1	2	Kenneth L. Kent 275 Yonge Street Burks Falls, Ontario	Maple	saw-logs	9.00	4.00		5.00	18.00 per MBM
					Yellow birch	saw-logs	11.00	12.00		5.00	28.00 per MBM
					Oak	saw-logs	6.00	4.00		5.00	15.00 per MBM
					Cherry	saw-logs	6.00	4.00		5.00	15.00 per MBM
					Elm	saw-logs	6.00	4.00		5.00	15.00 per MBM
					White Pine	saw-logs	5.00	5.00		5.00	15.00 per MBM
					Spruce	saw-logs	5.00	6.00		4.00	15.00 per MBM
					Beech	saw-logs	5.00	3.50		1.50	10.00 per MBM
					Hardwood	pulpwood	–	0.0190		0.0060	0.0250 per cu. ft.

CROWN TIMBER LICENCES, 1971-2

ISSUED BY VIRTUE OF SECTION 3(1) OF C.T.A.

Date	Licensee	Location	Expiry March 31st	Type of Transaction
April 7/71	J.D. Levesque Lumber Limited Box 460 Hearst, Ontario	Shannon Township	1974	New
April 7/71	William Stewart Murray Flanders, Ontario	Unsurveyed Territory Rainy River District	1974	Reissue
April 7/71	E.R. Degagne Highway 17 East Kenora, Ontario	Unsurveyed Territory Kenora District	1975	New
April 7/71	Jake E. Stewart Limited R.R. # 1 Deep River, Ontario	Head, Rolph and Bronson Townships	1972	Reissue
April 7/71	Walter Tuzyk Red Lake, Ontario	Unsurveyed Territory Kenora District	1974	New
April 7/71	Seine River Tourist and Timber Limited P.O. Box 399 Fort Frances, Ontario	Unsurveyed Territory Rainy River District	1974	Reissue
April 7/71	Edwin D. Kennedy Lumber Co. Limited R.R. # 3 Arnprior, Ontario	North and South Canonto and Brougham Townships etc.	1976	Reissue
April 7/71	Liskeard Lumber Limited 159 Faren Street New Liskeard, Ontario	Tretheway and Wallis Townships	1972	New
April 14/71	Kormak Lumber Company, Limited P.O. Box 608 Sudbury, Ontario	Halsey, Nimitz 12E Township etc.	1974	Reissue
April 14/71	Jerry Rathwell Dryden, Ontario	Unsurveyed Territory Kenora District	1974	New
April 14/71	Timber Framing and Treating Co. Limited 174 Larch Street Sudbury, Ontario	Leeson and Stover Townships	1973	Reissue
April 14/71	David Noik and Bernard Noik P.O. Box 516 Pembroke, Ontario	MacKay and Petawawa Townships	1972	Reissue
April 14/71	Trilake Timber Company Limited Box 361 Kenora, Ontario	Docker Township	1976	New
April 14/71	George Rousson R.R. # 1 Timmins, Ontario	Montrose Township	1972	New
April 14/71	George Kenneth Stringer Box 983 South Porcupine, Ontario	Macklen Township	1976	Reissue

April 14/71	M.J. Morrison R.R. #2 Kenora, Ontario	Unsurveyed Territory Kenora District	1975	New
April 21/71	Nychuk Lumber Limited P.O. Box 56 Swastika, Ontario	Sheba Township	1972	New
April 21/71	Multiply Plywoods Limited P.O. Box 910 Nipigon, Ontario	Unsurveyed Territory Thunder Bay District	1972	New
April 21/71	William Perchuk P.O. Box 127 Kenora, Ontario	Broderick, Gidley and Boys Townships	1976	New
April 21/71	L. Vincent Burns Box 222 Massey, Ontario	Tennyson Township	1972	Reissue
April 28/71	Multiply Plywoods Limited Box 910 Nipigon, Ontario	Unsurveyed Territory Thunder Bay District	1972	New
April 28/71	T.E. Woolings Englehart, Ontario	Clifford Township	1972	New
April 28/71	Abitibi Paper Company Ltd. Toronto-Dominion Centre Toronto 1, Ontario	Unsurveyed Territory Thunder Bay District	1972	New
April 28/71	Shuniah Contracting Limited 523 Current Avenue Thunder Bay P, Ontario	Unsurveyed Territory Thunder Bay District	1972	New
April 28/71	Frank H. Spence Limited P.O. Box 417 Thunder Bay P, Ontario	Pyramid, Mann, Well Townships etc.	1972	Reissue
April 28/71	Frank H. Spence Limited P.O. Box 417 Thunder Bay P, Ontario	Pyramid Township	1972	Reissue
April 28/71	G.L. McKnight Lee Valley, Ontario	McKinnon Township	1972	Reissue
April 28/71	Shuniah Contracting Limited 523 Current Avenue Thunder Bay P, Ontario	Unsurveyed Territory Thunder Bay District	1972	New
April 28/71	James Vibert R.R. # 2 Thunder Bay F, Ontario	Inwood Township	1972	New
April 28/71	Pembroke Lumber Company Limited P.O. Box 516 Pembroke, Ontario	Fitzgerald Township	1972	New
May 5/71	Kent Brothers Limited R.R. # 1 Sundridge, Ontario	Butt Township	1973	Reissue
May 5/71	Edward Wunsch Box 514 Mattawa, Ontario	Papineau Township	1974	New

CROWN TIMBER LICENCES, 1971-2 *(Continued)*

Date	Licensee	Location	Expiry March 21st	Type of Transaction
May 5/71	B & C Timber Company Limited Spanish, Ontario	Baldwin and Nairn Townships	1972	Reissue
May 5/71	Henry Johnson Timber Co. Limited 369 Queen Street E. Sault Ste. Marie, Ontario	Townships 3H and 202	1976	Reissue
May 5/71	Rheal Chartrand St. David N. Noelville, Ontario	Hendrie Township	1972	Reissue
May 5/71	The Great Lakes Paper Company Limited P.O. Box 430 Thunder Bay F, Ontario	Unsurveyed Territory Thunder Bay District	1972	New
May 5/71	Domtar Woodlands Ltd. Nipigon, Ontario	Unsurveyed Territory Thunder Bay District	1972	New
May 5/71	O.E. Rothwell Lumber Company Limited Lanark, Ontario	South Canonto Township	1976	New
May 12/71	Multiply Plywoods Limited Box 910 Nipigon, Ontario	Unsurveyed Territory Thunder Bay District	1972	New
May 19/71	Abitibi Paper Company Ltd. Toronto-Dominion Centre Toronto 1, Ontario	Algoma, Sudbury and Thunder Bay Districts	1989	Reissue
May 19/71	Island Lake Lumber Company Limited Box 608 Sudbury, Ontario	Township 13H	1974	Reissue
May 19/71	Odorizzi Lumber Company Limited Golden Valley, Ontario	Patterson Township	1976	New
May 19/71	Edward Harvey Wilson, Jones via Reddit, Ontario	Unsurveyed Territory Kenora District	1976	New
May 19/71	J.H. Normick Inc. Box 2500 La Sarre, Quebec	Unsurveyed Territory Cochrane District	1972	New
May 19/71	Kokotow Lumber Limited Box 220, Kirkland Lake, Ontario	Melba and Bisley Townships	1972	New
May 19/71	J.H. Normick Inc. Box 2500 LaSarre, Quebec	Rand, Harker, Garrison Townships etc.	1972	New
May 19/71	J.E. Martel and Sons Lumber Limited Box 758 Chapleau, Ontario	Sadler and Patterson Townships	1974	New

May 19/71	Field Lumber (1956) Limited Field, Ontario	Hobbs, Kenny, Clement Townships etc.	1981	New
May 19/71	The Morrison Brothers Limited Marten River, Ontario	Law, Olive and Milne Townships etc.	1974	New
May 26/71	The Gosselin Lumber Company Limited P.O. Box 1180 Hearst, Ontario	Fintry and Auden Townships	1975	New
May 26/71	Malette Lumber (1969) Limited P.O. Box 91 Timmins, Ontario	Whitesides and Frey Townships	1972	New
May 26/71	Clair Lalone R.R. # 1 Deltor, Ontario	Mayo Township	1973	Reissue
June 2/71	Harvey J. McFarland Picton, Ontario	Cashel Township	1974	New
June 2/71	Meadowside Lumber Limited 1230 Fraser Street North Bay, Ontario	Charlton and Grant Townships	1973	New
June 2/71	Oscar Styffe Limited Box 146 Thunder Bay P, Ontario	Lismore, Hardwick and Robbins Townships etc.	1972	Reissue
June 2/71	Oscar Styffe Limited Box 146 Thunder Bay P, Ontario	Hardwick and Lismore Townships	1972	Reissue
June 9/71	Devlin Timber Company Limited 59 Drewry Drive Kenora, Ontario	Rice, Gundy, Malachi Townships etc.	1976	New
June 9/71	Roy Bye 179 Woodward Avenue Sault Ste. Marie, Ontario	Hodgins Township	1971	New
June 9/71	Crystal Falls Enterprises Limited Crystal Falls, Ontario	Grant Township	1973	New
June 9/71	Manitou Rapids Corporation Emo, Ontario	Godson Township	1972	New
June 9/71	Peter Denys Point Aux Pin R.R. # 1 Sault Ste. Marie, Ontario	Township 27 R. XII	1972	Reissue
June 16/71	Multiply Plywoods Limited Box 910 Nipigon, Ontario	Purdom Township	1972	New
June 16/71	Multiply Plywoods Limited Box 910 Nipigon, Ontario	Unsurveyed Territory Thunder Bay District	1972	New
June 23/71	Polar Lumber Company Limited P.O. Box 880 Hearst, Ontario	Fushimi Township	1972	New

CROWN TIMBER LICENCES, 1971-2 *(Continued)*

Date	Licensee	Location	Expiry March 31st	Type of Transaction
June 23/71	Widjiitiwin Corporation R.R. # 1 Vermilion Bay, Ontario	Unsurveyed Territory Kenora District	1973	New
June 23/71	Earl J. Armstrong Madoc, Ontario	Lake Township	1976	New
June 30/71	Buchanan Brothers (Ontario) Limited P.O. Box 563 Nipigon, Ontario	Glenn Township	1972	New
June 30/71	Woolings Forest Products Limited Englehart, Ontario	Lee Township	1974	New
June 30/71	J.E. Martel and Sons Lumber Limited Box 758 Chapleau, Ontario	Lipsett Township	1972	New
June 30/71	Denis Dostie P.O. Box 1328 Blind River, Ontario	Montgomery Township	1972	New
June 30/71	Arrow Timber Company Limited Box 1012, Hearst, Ontario	Fushimi and Bannerman Townships	1972	New
June 30/71	Chapleau Lumber Limited P.O. Box 280 Chapleau, Ontario	Lipsett Township	1972	New
June 30/71	Romeo Richer Box 142 Markstay, Ontario	Hawley Township	1978	Reissue
July 14/71	Gillies Rousseau Lumber Limited Blind River, Ontario	Scarfe Township	1972	New
July 14/71	A. & L. Lafreniere Lumber Limited P.O. Box 340 Chapleau, Ontario	Lipsett and Busby Townships	1972	New
July 14/71	Shoal Lake Corporation Kejick P.O., Ontario	Gundy Township	1972	New
July 14/71	Buchanan Brothers (Ontario) Limited P.O. Box 563 Nipigon, Ontario	Unsurveyed Territory Thunder Bay District	1972	New
July 14/71	Feldman Timber Company Limited Timmins, Ontario	Enid Township	1972	New
July 20/71	Buchanan Brothers (Ontario) Limited P.O. Box 563 Nipigon, Ontario	Unsurveyed Territory Thunder Bay District	1972	New
August 4/71	William MacBrien Box 303 Mattawa, Ontario	Lauder Township	1976	New

August 4/71	Lecours Lumber Company Calstock, Ontario	Unsurveyed Territory Cochrane District	1972	New
August 4/71	Cloutier Brothers Limited R.R. # 1 Smooth Rock Falls, Ontario	Alexandra Township	1973	New
August 4/71	Sawyer-Stoll Lumber Company of Canada Limited P.O. Box 280 Tweed, Ontario	Miller Township	1973	New
August 4/71	T.G. Fleron Limited Thessalon, Ontario	Haughton and Gould Townships	1974	New
August 4/71	Northern Forest Products Limited P.O. Box 990 Thunder Bay P, Ontario	Unsurveyed Territory Thunder Bay District	1973	New
August 4/71	Sawyer-Stoll Lumber Company of Canada Limited P.O. Box 280 Tweed, Ontario	Anglesea Township	1976	New
August 11/71	J.H. Normick Inc. Box 2500 LaSarre, Quebec	Unsurveyed Territory Cochrane District	1972	New
August 18/71	The Ontario Paper Company Limited Thorold, Ontario	Roche Township	1975	New
August 18/71	Jack Christianson P.O. Box 70 Mattice, Ontario	Devitt Township	1972	Reissue
August 25/71	Rene Champoux Searchmont, Ontario	Marne Township	1972	New
August 25/71	Pawitik Corporation Pawitik P.O. Sioux Narrows, Ontario	Unsurveyed Territory Kenora District	1973	New
August 25/71	Liskeard Lumber Limited 159 Faren Street New Liskeard, Ontario	Selby Township	1973	New
August 25/71	Sawyer-Stoll Lumber Company of Canada Limited P.O. Box 280 Tweed, Ontario	Miller and South Canonto Townships	1976	New
September 1/71	The Gosselin Lumber Company Limited P.O. Box 1180 Hearst, Ontario	Rogers Township	1972	Reissue
September 1/71	Maurice Lecours Box 1000 Hearst, Ontario	Bannerman Township	1972	Reissue
September 1/71	William Pickard Batchawana, Ontario	Township 26 Range 12 Township 26 Range 13	1972	New
September 1/71	Louis Charland 712 Third Line West Sault Ste. Marie, Ontario	Gaudette Township	1972	New

CROWN TIMBER LICENCES, 1971-2 *(Continued)*

Date	Licensee	Location	Expiry March 31st	Type of Transaction
September 1/71	Rogerson Lumber Company Limited Port Loring, Ontario	Carlyle Township	1972	New
September 15/71	Wm. Pollock & Sons Englehart, Ontario	Sharpe and Truax Townships	1974	Reissue
September 15/71	Dubreuil Brothers Limited Dubreuilville, Ontario	Township 31 Range 27	1972	New
September 19/71	Ludger Otis 73 Royal York Boulevard Sault Ste. Marie, Ontario	Hodgins Township	1972	New
September 26/71	Nym Lake Timber Company Box 760 Atikokan, Ontario	Unsurveyed Territory Rainy River District	1974	New
September 26/71	George W. Skidmore R.R. # 2 Cochrane, Ontario	Kennedy Township	1972	New
October 10/71	Herb Shaw & Sons Limited R.R. # 6 Pembroke, Ontario	Niven and Dickson Townships	1972	New
October 10/71	G. & B. Logging Limited 5 First Avenue Wawa, Ontario	Township 30 Range 20	1973	New
October 17/71	Kimberly Clark Pulp and Paper Company Limited 2 Carlton Street Toronto 2, Ontario	Thunder Bay District	1988	Reissue
October 17/71	Chantier Co-Operative de Barker Val Rita, Ontario	Barker Township	1972	New
October 17/71	Abitibi Paper Company Ltd. Toronto-Dominion Centre Toronto 1, Ontario	Thunder Bay and Kenora Districts	1989	Reissue
October 17/71	Rosaire Bouchard R.R. # 1 Moonbeam, Ontario	Nansen Township	1972	New
October 17/71	Feldman Timber (Matheson) Ltd. P.O. Box 440 Timmins, Ontario	Garrison, Harker and Elliott Townships etc.	1972	New
October 17/71	The Dryden Paper Company Limited Dryden, Ontario	Kenora District	1991	Reissue
October 17/71	Feldman Timber Company Limited Timmins, Ontario	Reeves Township	1972	New
November 3/71	Frank Lecomte & Archie Ross P.O. Box 328 Ear Falls, Ontario	Unsurveyed Territory Kenora District	1976	Reissue
November 3/71	Sabaskong Corporation Nestor Falls, Ontario	Godson Township	1973	New

November 3/71	Dickenson Mines Limited Suite 416 25 Adelaide Street W. Toronto, Ontario	Balmer Township	1975	Reissue
November 3/71	Dufresne Forest Products Limited Highway #17 East Kenora, Ontario	Unsurveyed Territory Kenora District	1972	Reissue
November 3/71	R.E. Bowman Box 66 Hudson, Ontario	Unsurveyed Territory Kenora District	1974	Reissue
November 3/71	A.J. Labelle Box 177 Hudson, Ontario	Unsurveyed Territory Kenora District	1975	Reissue
November 3/71	The Great Lakes Paper Company Limited P.O. Box 430 Thunder Bay F. Ontario	Kenora and Thunder Bay Districts	1982	Reissue
November 3/71	Sioux Lookout Forest Products Limited Sioux Lookout, Ontario	Unsurveyed Territory Kenora District	1972	Reissue
November 3/71	Spruce Falls Power and Paper Company Limited 2 Carlton Street Toronto 2, Ontario	Algoma, Cochrane and Sudbury Districts	1982	Reissue
November 3/71	Chukuni Lumber Company Limited Ear Falls, Ontario	Unsurveyed Territory Kenora District	1974	Reissue
November 3/71	Albert Beck Box 819 Sioux Lookout, Ontario	Unsurveyed Territory Kenora District	1974	Reissue
November 3/71	Kenneth McDougall Red Lake, Ontario	Unsurveyed Territory Kenora District	1973	Reissue
November 18/71	Walter Tuzyk Red Lake, Ontario	Unsurveyed Territory Kenora District	1973	Reissue
November 18/71	M.J. Labelle Box 410 Cochrane, Ontario	Leitch Township	1973	Reissue
November 18/71	Walter Tuzyk Red Lake, Ontario	Unsurveyed Territory Kenora District	1974	Reissue
November 18/71	St. Lawrence Corporation Limited 395 De Maisonneuve Boulevard P.O. Box 7210 Montreal 101, Quebec	Thunder Bay District	1984	Reissue
November 18/71	The Gosselin Lumber Co. P.O. Box 1180 Hearst, Ontario	Fintry and Auden Townships	1975	Reissue
November 18/71	Champlain Forest Products Limited P.O. Box 1468 North Bay, Ontario	Townships 2C, 2B, 3C, etc.	1973	New
November 18/71	Cloutier Brothers R.R. # 1 Smooth Rock Falls, Ontario	Alexander Township	1972	Reissue

CROWN TIMBER LICENCES, 1971-2 *(Continued)*

Date	Licensee	Location	Expiry March 31st	Type of Transaction
November 18/71	Abitibi Paper Company Ltd. Toronto-Dominion Centre Toronto 1, Ontario	Cochrane and Sudbury Districts	1988	Reissue
November 18/71	The Ontario-Minnesota Pulp and Paper Company Limited Fort Frances, Ontario	Kenora and Rainy River Districts	1984	Reissue
November 24/71	Abitibi Paper Company Ltd. Toronto-Dominion Centre Toronto 1, Ontario	Cochrane and Timiskaming Districts	1989	Reissue
December 1/71	Northern Forest Products Limited P.O. Box 990 Thunder Bay P, Ontario	Unsurveyed Territory Thunder Bay District	1976	New
December 8/71	E.R. Degagne Highway 17 East Kenora, Ontario	Pelican Township	1972	Reissue
December 15/71	La Societe Co-Operative de Mattice Mattice, Ontario	Barker Township	1972	New
December 15/71	The Great Lakes Paper Company Limited Box 430 Thunder Bay F, Ontario	Kenora and Thunder Bay Districts	1982	Reissue
December 22/71	Lac Seul Land & Lumber Company P.O. Box 627 Thunder Bay P, Ontario	Unsurveyed Territory Kenora District	1973	Reissue
December 22/71	William Saskasky P.O. Box 920 Red Lake, Ontario	Unsurveyed Territory Kenora District	1974	Reissue
December 22/71	Gustav Sotke Box 221 Red Lake, Ontario	Unsurveyed Territory Kenora District	1974	Reissue
January 5/72	Patrick Robillard Box 539 Red Lake, Ontario	Unsurveyed Territory Kenora District	1974	Reissue
January 5/72	Floyd M. Drager P.O. Box 168 Red Lake, Ontario	Unsurveyed Territory Kenora District	1972	Reissue
January 5/72	E.R. Degagne Highway 17 East Kenora, Ontario	Unsurveyed Territory Kenora District	1975	Reissue
January 5/72	Charles Leray R.R. # 1 Keewatin, Ontario	Unsurveyed Territory Kenora District	1973	Reissue
January 12/72	Arrow Timber Co. Ltd. Box 1012 Hearst, Ontario	Fushimi and Bannerman Townships	1972	Reissue

January 12/72	Multiply Plywoods Limited Box 910 Nipigon, Ontario	McMaster Township	1972	New
January 12/72	Roy McDonald Whitedog P.O. Via Minaki, Ontario	Unsurveyed Territory Kenora District	1972	Reissue
January 12/72	Alfred Isabelle Box 119 Opasatika, Ontario	McCowan Township	1972	New
January 12/72	Flek Timber Company Limited Opasatika, Ontario	Fleck Township	1975	Reissue
January 12/72	Central Timber Products Red Lake, Ontario	Unsurveyed Territory Kenora District	1973	Reissue
January 12/72	Hearst Transport and Lumber Company Limited Hearst, Ontario	Fleck Township	1974	Reissue
January 5/72	Orval Lougheed General Delivery Keewatin, Ontario	Unsurveyed Territory Kenora District	1974	Reissue
January 12/72	Boreal Timber Limited Box 627 Thunder Bay P, Ontario	Laurie and Sackville Townships	1972	New
January 12/72	A. Lecours & Sons Limited Hearst, Ontario	Unsurveyed Territory Cochrane District	1973	New
January 19/72	Gustav Sotke P.O. Box 221 Red Lake, Ontario	Unsurveyed Territory Kenora District	1975	Reissue
January 19/72	William Saskosky P.O. Box 920 Red Lake, Ontario	Unsurveyed Territory Kenora District	1975	Reissue
January 19/72	J.D. Levesque Lumber Limited Box 460 Hearst, Ontario	Shannon Township	1974	Reissue
January 26/72	The Gosselin Lumber Company P.O. Box 1180 Hearst, Ontario	Rogers Township	1972	New
January 26/72	Polar Lumber Company Limited P.O. Box 880 Hearst, Ontario	Fushimi Township	1972	New
January 26/72	Maurice Lecours Box 1000 Hearst, Ontario	Bannnerman Township	1972	New
January 26/72	Amo Corporation Box 40 Kenora, Ontario	Rudd Township	1975	Reissue
January 26/72	American Can of Canada Limited Marathon, Ontario	Thunder Bay, Cochrane and Algoma Districts	1977	Reissue
January 26/72	Jack Christianson P.O. Box 70 Mattice, Ontario	Devitt Township	1972	Reissue

CROWN TIMBER LICENCES, 1971-2 *(Continued)*

Date	Licensee	Location	Expiry March 31st	Type of Transaction
January 26/72	Lecours Lumber Company Calstock, Ontario	Unsurveyed Territory Cochrane District	1972	Reissue
February 2/72	St. Lawrence Corporation Limited 395 De Maisonneuve Boulevard P.O. Box 7210 Montreal 101, Quebec	Thunder Bay District	1984	Reissue
February 9/72	John W. Fogg Limited Box 1090 New Liskeard, Ontario	Parliament, Avon and Tolmie Townships etc.	1977	Reissue
February 9/72	John W. Fogg Limited Box 1090 New Liskeard, Ontario	Douglas, Geikie and Fallon Townships etc.	1977	Reissue
February 9/72	A.E. Wicks Limited P.O. Box 1090 New Liskeard, Ontario	Bartlett, Keikie, Beemer	1977	Reissue
February 9/72	A.E. Wicks Limited P.O. Box 1090 New Liskeard, Ontario	Blount, Beniah, Inglis Townships etc.	1977	Reissue
March 1/72	Remus Brothers 265 McKay Street Pembroke, Ontario.	Alice, Petawawa, Fraser Townships etc.	1973	Reissue
March 1/72	Consolidated–Bathurst Limited Box 68 Portage Du Fort, Quebec	Stratton Township	1972	Reissue
March 8/72	William Rothenburger 489 Lyon Avenue Thunder Bay P, Ontario	Hardwick, Jean and Robbins Townships	1975	Reissue
March 8/72	Reginald F. Walker Englehart, Ontario	Mulligan Township	1973	Reissue
March 8/72	Island Lake Lumber Company Box 608 Sudbury, Ontario	Township 12H	1975	Reissue
March 8/72	Paul Csuzdi 925 Kildonan Drive E,K. Winnipeg 5, Manitoba	Pelican and Umbach Townships	1972	Reissue
March 8/72	Consolidated–Bathurst Limited Box 68 Portage Du Fort, Quebec	Fitzgerald and Deacon Townships	1972	Reissue
March 8/72	Amo Corporation Box 40 Kenora, Ontario	Unsurveyed Territory Kenora District	1975	Reissue
March 15/72	The Great Lakes Paper Company Limited P.O. Box 430 Thunder Bay F, Ontario	Unsurveyed Territory Thunder Bay District	1973	New

March 15/72	Kakabeka Timber Limited Box 35 Thunder Bay P, Ontario	Lismore Township	1975	Reissue
March 15/72	Lecours Lumber Company Calstock, Ontario	Township 238	1973	New
March 15/72	Kormak Lumber Company Limited Box 608 Sudbury, Ontario	Township 11E	1975	Reissue
March 15/72	H.D. Fryer Monetville, Ontario	Falconer Township	1972	Reissue
March 15/72	Abitibi Paper Company Ltd. Toronto-Dominion Centre Toronto 1, Ontario	Unsurveyed Territory Thunder Bay District	1973	New
March 15/72	Sam Mitchell Englehart, Ontario	Mulligan Township	1972	Reissue
March 15/72	Northern Forest Products Limited P.O. Box 990 Thunder Bay P, Ontario	Unsurveyed Territory Thunder Bay District	1974	Reissue
March 15/72	Temiskaming Wood Products Limited Main Street Kirkland Lake, Ontario	Arnold, Gauthier, Katrine Townships etc.	1972	Reissue
March 22/72	Weldwood of Canada Limited P.O. Box 847 Huntsville, Ontario	Livingstone Township	1973	Reissue
March 22/72	Nychuk Lumber Limited P.O. Box 56 Swastika, Ontario	Sheba Township	1973	New
March 22/72	Kokotow Lumber Limited Box 220 Kirkland Lake, Ontario	Morel Township	1973	New
March 22/72	Kokotow Lumber Limited Box 220 Kirkland Lake, Ontario	Dunmore Township	1973	New
March 22/72	Northwest Angle # 33 Corporation Angle Inlet P.O. Minnesota, U.S.A.	Unsurveyed Territory Kenora District	1974	New
March 22/72	Northern Forest Products Limited Box 990 Thunder Bay P, Ontario	Unsurveyed Territory Thunder Bay District	1974	Reissue
March 22/72	Savant Forest Products Savant Lake, Ontario	Conant, Boucher and McCubbin Townships	1972	New
March 22/72	Woollings Forest Products Limited Englehart, Ontario	Cook Township	1979	Reissue
March 22/72	Patrick Lynch 190 Juniper Drive Thunder Bay P, Ontario	Fraleigh Township	1975	Reissue

CROWN TIMBER LICENCES, 1971-2 *(Continued)*

Date	Licensee	Location	Expiry March 31st	Type of Transaction
March 22/72	M.J. Morrison R.R. # 2 Kenora, Ontario	Unsurveyed Territory Kenora, Ontario	1975	Reissue
March 22/72	Martin Brothers Lumber Company Harcourt, Ontario	Burton Township	1973	Reissue
March 22/72	Woollings Forest Products Limited Englehart, Ontario	Lee and Terry Townships	1979	Reissue